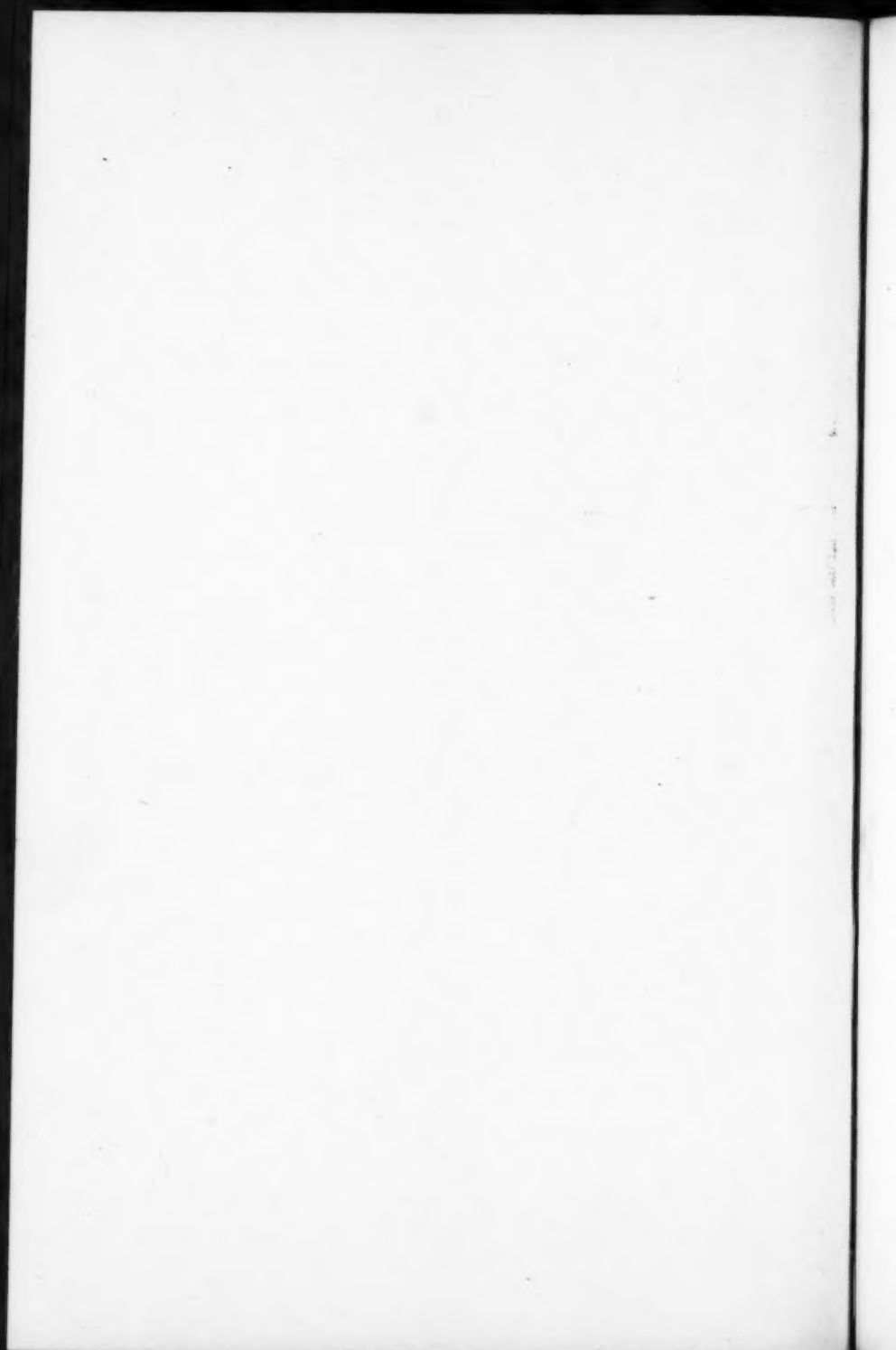


BULLETIN No. 85

Transportation
Library



THE RAILWAY AND LOCOMOTIVE HISTORICAL SOCIETY



BULLETIN No. 85

COPYRIGHT 1952

BY THE RAILWAY & LOCOMOTIVE HISTORICAL SOCIETY, INC.

ISSUED BY

THE RAILWAY & LOCOMOTIVE HISTORICAL SOCIETY, INC.

BAKER LIBRARY, HARVARD BUSINESS SCHOOL

BOSTON, MASSACHUSETTS

March, 1952

Price for Members \$1.00

Price for Non-Members \$2.00

Contents

Editorial Comment	6
Corrections to B. R. & P. Roster	8
Pennsylvania Railroad in Maryland	9
Georges Creek and Cumberland Railroad	11
The Connellsville Extension of the Western Maryland Railroad.....	19
Hail and Farewell	28
American Built Locomotives in South Wales	30
Ontario, Simcoe & Huron Railway	35
Narrow Gauge Locomotives in Western New York and Pennsylvania	43
The Hudson River Bridge	52
Manchester, Dorset & Granville Railway Company	54
The Boston and Mt. Desert Limited	57
The U S R A Russian Decapods	59
Worth Reading	60
New Books	68
Randall Vause Mills	72
In Memory of	72

Transport
Direct
8-5-52

The Railway and Locomotive Historical Society

Officers and Directors

- CHAS. E. FISHER, *President*
20 Wilde Road, Waban (68), Mass.
D. W. YUNGMEYER, *Vice President*
5116 Dorchester Ave., Chicago (15), Ill.
WARREN JACOBS, *Secretary Emeritus*
1062 Main St., Hingham, Mass.
HAROLD D. FORSYTH, *Secretary*
P. O. Box 42, West Lynn, Mass.
HOWARD F. GREENE, *Financial Secretary*
44 School St., Boston (8), Mass.
GEO. P. BECKER, *Treasurer*
53 Westmoreland Ave., Longmeadow, Mass.
JOHN W. MERRILL, *Curator*
148 State St., Boston, Mass.
W. R. FOGG, *Director*
26 Monadnock St., Boston (25), Mass.
DR. ARTHUR H. COLE, *Director*
Baker Library, Harvard Business School, Boston, Mass.
ROBERT C. SCHMID, *Director*
266 Maitland Ave., West Englewood, N. J.
ROGERS E. M. WHITAKER, *Director*
3 East 47th St., New York (17), N. Y.
H. LINCOLN HARRISON, *Director*
29 Elm Street, Worcester, Mass.

Resident Directors

- G. W. BISHOP, *European*
12 Queen's Road, Kenilworth, Warwickshire, England
D. L. JOSLYN, *Western*
2164 Castro Way, Sacramento (17), Cal.

Resident Vice-Presidents

- WM. T. GAYNOR, *New York*
1221-466 Lexington Ave., New York (17), N. Y.
R. L. MARTIN, *Mid-Western*
1509 28th St., Rock Island, Ill.
GILBERT H. KNEISS, *San Francisco*
18 Forest Lane, Berkeley, Calif.

Representatives

- ALEXANDER L. H. DARRAGH, *Mid-Western*
1815 Bergan St., South Bend (28), Ind.
G. M. BEST, *Pacific Coast*
511 N. Sierra Dr., Beverly Hills, Cal.
ROBERT R. BROWN, *Canadian*
201 Lakeshore Rd., Pointe Claire, P. Q., Canada
D. S. BARRIE, *British*
20 Buckingham Ave., Whetstone, London, N. 20, England
CARLTON PARKER, *Exchange Manager*
25 Woodward St., Newton Highlands (61) Mass.

The Railway and Locomotive Historical Society

Chapter Officers

NEW YORK CHAPTER

ROBERT C. SCHMID, *Chairman*

266 Maitland Ave., West Englewood, N. J.

JOHN GIBB SMITH, JR., *Vice Chairman*

99 N. Grove St., Freeport, L. I., N. Y.

EDWARD COLGAN, *Secretary*

P. O. Box #434, Grand Central Annex, New York (17), N. Y.

CARL F. GRAVES, *Treasurer*

Apt. Van Buren 2A, Glenwood Gardens, Yonkers (2), N. Y.

CHICAGO CHAPTER

BERNARD L. STONE, *Chairman*

1062 Columbia Ave., Chicago (26), Ill.

CHARLES B. MEDIN, *Vice Chairman*

126 North Lincoln Ave., Lombard, Ill.

MERLE L. ANDERSON, *Secretary*

7839 South Michigan Ave., Chicago (19), Illinois

LYMAN B. HERRIN, *Treasurer*

7846 East End Ave., Chicago (49), Illinois

PACIFIC COAST CHAPTER

FRED A. STINDT, *Chairman*

1414 Aberdeen Dr., San Mateo, Cal.

FRANK RIGNEY, *Vice Chairman, Northern California*

537 West MacArthur Blvd., Oakland (9), Cal.

G. M. BEST, *Vice Chairman, Southern California*

511 N. Sierra Dr., Beverly Hills, Cal.

EDWARD T. PLANER, *Secretary*

469 Crescent St., Oakland, Cal.

J. E. TURNER, *Treasurer*

1739 Berkeley Way, Berkeley (3), Cal.

NORTHERN INDIANA CHAPTER

LEON A. WITUCKI, *Chairman*

1034 North Brookfield St., South Bend (28), Ind.

DR. ALLEN E. BRUNSON, *Vice Chairman*

R. R. No. 2, Sturgis, Michigan

CARL E. SACKMAN, *Secretary*

P. O. Box 43, Gary, Indiana

SANFORD A. GOODRICK, *Treasurer*

1707 Marquette Blvd., South Bend (28), Ind.

The Railway and Locomotive Historical Society, INC.

COMMITTEE IN CHARGE OF PUBLICATIONS

CHAS. E. FISHER, *Editor* F. STEWART GRAHAM, *Assistant Editor*
O. KUHNER, *Art Editor*

ROBERT C. SCHMID, *Chairman, Eastern Committee*
C. F. GRAVES H. E. NICHOLS

D. W. YOUNGMEYER, *Chairman, Mid-Western Committee*
FRANK P. DONOVAN, JR. ROY L. MARTIN

D. L. JOSLYN, *Chairman, Western Committee*
GILBERT H. KNEISS

ROBERT R. BROWN, *Chairman, Canadian Committee*
J. H. EDGAR NORMAN THOMPSON W. M. SPRIGGS

G. W. BISHOP, *Chairman, European Committee*
F. ACHARD J. W. SMITH

We are about to start another year with our publications and we hope our members will enjoy the contributions that are presented herewith. Mr. W. Ray Hicks, whose favorite railroads are those in the State of Maryland, in view of the centennial of the Western Maryland R. R. which is this year, has contributed an interesting article on the railroads that formed a part of that present company. In a similar fashion, Mr. Brown, authority on the Canadian railroads, has presented an interesting contribution on the Ontario, Simcoe & Huron Ry., the first line of any consequence to operate in the province of Ontario, in 1853.

After much painstaking research, Mr. C. F. H. Allen has produced rosters of the narrow gauge locomotives used on the railroads in McKeen County, Pennsylvania, to round out his series of articles that have previously appeared. Mr. Barrie, our British Representative has contributed an interesting article on some American-built locomotives for Wales and Mr. Weatherwax has written a "farewell" to a famous locomotive—ALCo. No. 50,000. These special locomotives of builder's designs are always of interest and they have generally given outstanding performance and this one was no exception. We welcome to our columns Mr. G. Murray Campbell with his brief sketch of the little Vermont line—Manchester, Dorset & Granville R. R., tho' it is not unlikely that some of our members have already received this interesting account.

Lastly, our member Mr. M. B. Wakefield has favored us with a sketch of the first bridge crossing the Hudson River at Albany, N. Y. and with an account of the opening of this bridge. To all of these contributors, we wish to express our appreciation for their work and we hope that our readers will enjoy this publication.

Editorial Comment

It has been a pleasure to receive the comments from Messrs. Ghormley, Boutell, Carneal and the others relative to the origin of BB&BC No. 7. At the time I concurred with Mr. Best, I recognized the fact that the cab and grab irons were of "Pennsy" pattern; the cylinder cock arrangement as pointed out by some of the others. However, this would not be conclusive because both Hicks and Southern I & E Co., could and did rebuild the engines they purchased so as to make it difficult to trace their origin. One thing which neither builder would attempt to change, would be the valve gear and here, as Fred Jukes has pointed out, by comparing that on the BB&BC No. 7 with what the PRR used on their G-1 and G-2 classes, it would tend to confirm its origin from this road. However, according to the PRR classification, they never built at Altoona or purchased a locomotive of either of these classes with 17x24" cylinders, and here, Mr. Van Wyck, upon checking back through his notes, admits that this engine had a 22" stroke and the diameter was well worn to over 18 inches. These two facts clarify the situation and both Mr. Best and your editor are willing to admit their error. Thus, it would seem as though this engine was either of the G-1 or G-2 classes of the PRR, built in the 1870's and, the enjoyment received from the writers of these comments has been well worth while.

I am taking the liberty of commenting on the conclusion that BB&BC No. 6 was the "mystery monster" on the Buffalo & Susquehanna as stated in our Bulletin No. 49 and Bulletin No. 70, page 54. Prior to the delivery of 1st No. 101 in 1895, the B & S received from Baldwin a group of 20x24" "consols" with 47" drivers; in 1895, 1st No. 101 was delivered, 2-8-0, 21x26" 50" drivers and she was subsequently re-numbered 112. 2nd No. 101 came from the Altoona & Phillipsburg Connecting R. R., a subsidiary of the B & S and this Vauclain compound weighed 125,000 lbs. probably the heaviest locomotive the light tracks and bridges of the B & S could handle. Before concluding that this 2nd No. 101 was the "mystery" engine, it is well to read the remarks of Mr. Soranson carefully. The thing that impressed him about this "mystery" engine was the number of drivers and, she was stored because she was too heavy for the track as well as damaging the track and trestles on the Fall Brook when they tried to run her over those tracks in service to Ansonia. I cannot see where the 2nd No. 101 fills a single one of these conditions. The fact that she was a 2-8-0, the same number of wheels as the others of that type would fail to make such an impression on the memory of Mr. Soranson. The fact that she weighed 125,000 lbs. does not place her as an unduly heavy locomotive, not much heavier than the 1st No. 101, not a great deal heavier than the 2-8-0's on the Fall Brook roster. I think we must look elsewhere. She could not have been a 2-10-2 because that type of locomotive was yet to come. She could have been a 2-10-0 because Baldwin had recently completed an order for some of this type for the N. Y. L. E. & W. R. R. The B & S might have borrowed one for service on their road but, after the trial, the engine would have been returned to the owner. On the other hand,

these were a very heavy engine, the N. Y. L. E. & W. was proud of them and, I don't believe that they ever loaned one to the B & S. The only locomotive that I can see, known to have been in the immediate vicinity, was the "tree climber" known as the "Edward T. Johnson" built by Baldwin in March 1892 for the Sinnemahoning Valley R. R. This Vauclain compound was of the 0-6-6-0T type, drivers swivelled same as a truck with 75,000 lbs. on each set of drivers, making a total weight of 150,000 lbs. It seems to me that this engine has enough drivers to attract the attention of Mr. Soranson, or anyone else and that the weight would certainly make trouble on the Fall Brook. The claim made that she was a new engine, purchased for that service, well; a coat of paint will work wonders as well as create false impressions as any roundhouse foreman knows. The claim that she was scrapped before all this happened, your editor has known of locomotives continuing in service long after the records show them to have been scrapped; that is why, in his opinion, these scrapped dates are of small importance. But, in his opinion, this "Edward T. Johnson," S. V. No. 3 comes nearer filling the role of the "mystery" engine than does B & S 2nd No. 101 that went to the BB&BC, tho' I do not question her service on that road.

Lastly, the locomotive "X" as illustrated in our Bulletin No. 82 and the subject of a letter from Mr. F. Achard, together with comments by Mr. Warner. There have been expressions received from Mr. Dewhurst and one or two others but, in the Rogers catalogue, 1886 edition, page 12, fig. 13 is an axle with half crank, with an account of the importance of counterbalancing the cranks and connecting rods and this procedure was used on the "Sandusky," the first locomotive built by Thomas Rogers and is almost identical with that used on the locomotive "X." Two other facts are brought out by Mr. Achard; first the drawing is drawn to a scale of 1/50; second, Couche did not aim to describe the specific details of their construction. If, as Mr. Archard has deduced, this engine was built by Rogers no sooner than 1841 and not later than January, 1842, and according to Sinclair, the spark arrester places it in service on one of the roads controlled by the New York Central, then, according to the Rogers record, it could be only one engine:

Rogers No. 34, Mohawk & Hudson "Columbia," built Nov. 21, 1841.

Of the nine locomotives built during that period, this is the only one that was delivered to a road in New York State now controlled by the New York Central R. R.

I think that we can safely assume that BB&BC No. 7 originated from the Pennsylvania R. R. and was either one of the G-1 or G-2 class locomotives; that the "mystery" locomotive of the B & S was the "Edward T. Johnson" until someone can prove differently to both your editor and to Mr. Charles C. Madison and that Mr. Achard's "X" locomotive, in view of the fact that Couche did give specific details of construction and the original drawing is to scale, that we accept it as the Mohawk & Hudson locomotive until we know otherwise. Well, it has been fun making these deductions and I want to express my appreciation to all of those who were kind enough to express their opinions.

Corrections to B. R. & P. Roster

Since the publication of the roster of locomotives of the Buffalo, Rochester and Pittsburgh Ry. appeared in our Bulletin 84, some of our members have been kind enough to furnish either additional information or call my attention to some errors.

The shop numbers of BR&P No. 166 and 278 should read respectively 29389 and 22357. Also, BR&P Nos. 165-167 were built at the Schenectady plant, not at Brooks.

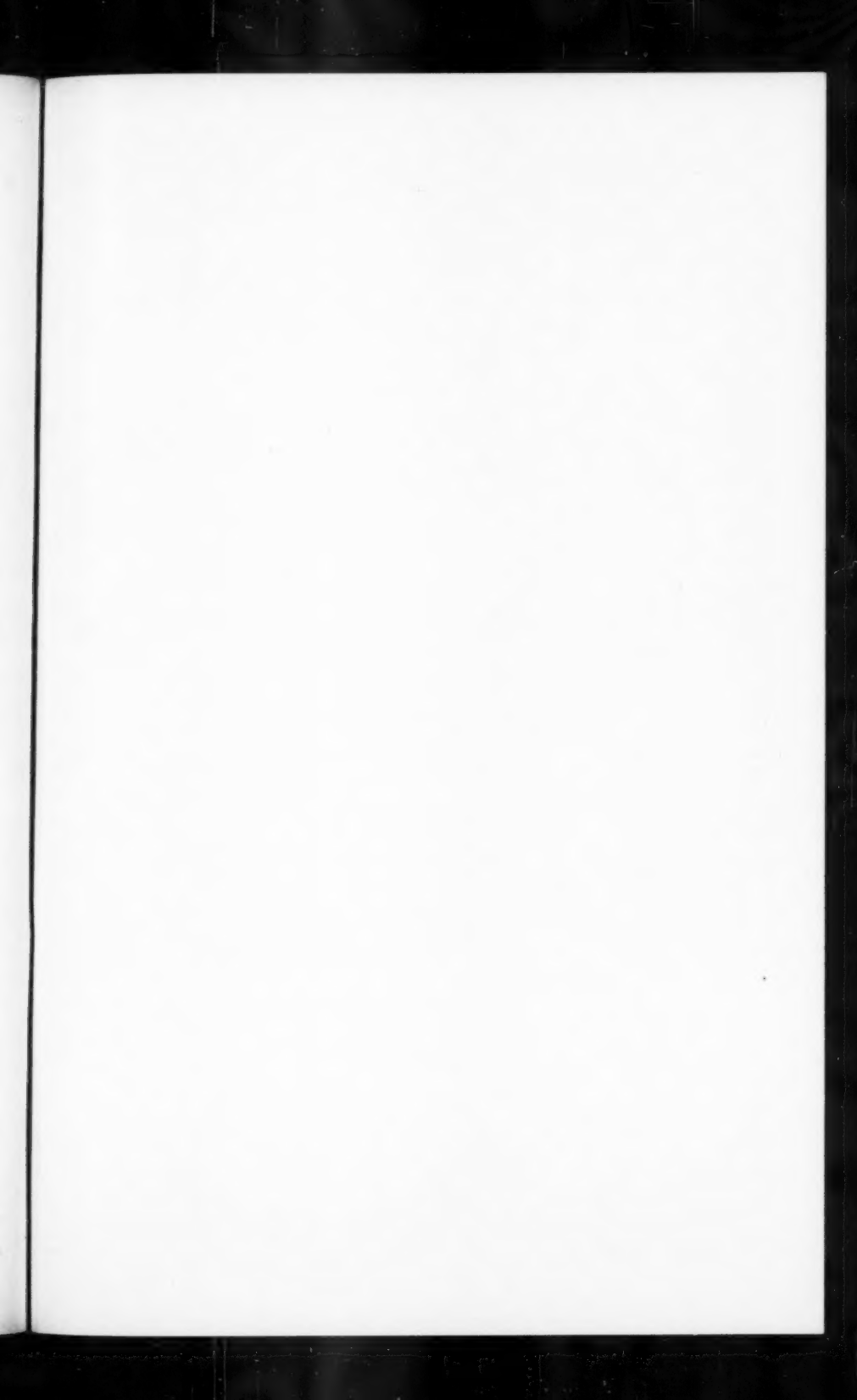
Furthermore, the following BR&P engines did receive B&O numbers: BR&P 285 became B&O 3083; the 307 became 3009; the 343 became the 3053 and the 338 was renumbered the 3052.

Also, BR&P No. 126 was sold to the Prattsburgh Ry. around 1927 and became their No. 2. On page 53, 16th line, it should read SI&E No. 1472 instead of 1475.

The Reynoldsville & Falls Creek R. R. subsequently acquired by the BR&P, purchased seven locomotives from the Brooks Works:

R&FC No. 1	Brooks 1076, 2-6-0 1885, 17x24" 48"
No. 2	1497, 2-6-0 1889, 18x24" 56"
No. 3	1533, 2-6-0 1889, 19x24" 56"
No. 4	2872, 2-6-0 1897, 19x24" 50"
No. 5	3460, 2-6-0 1900, 19x24" 50"
No. 6	3743, 2-6-0 1901, 19x24" 50"
No. 7	26613, 2-6-0 1902, 19x24" 50"

Whether any of the above seven locomotives carried a BR&P number, I do not know, for this reason they were not listed in Bulletin 84.



Pennsylvania Railroad in Maryland

By W. R. HICKS

In the Act of the Pennsylvania legislature commuting the tonnage tax in 1861, provision was made for the Pennsylvania Railroad Company to expend the sum of \$850,000 in the construction of certain short line railroads within the State. It was the intention of the legislature to provide certain sections of the State with railroad service and this in turn provided feeder or what were called "commutation lines." Business conditions delayed much of this construction but in 1870 the Bedford & Bridgeport Railroad Company was formed at Bedford to construct a line from Bedford, Pa. to Bridgeport, Pa. By supplements to its charter, the company was authorized to build from Bedford east to Mount Dallas, connecting with the Huntingdon and Broad Top Mountain Railroad and thus providing a thorough connection with the main line of the Pennsylvania at Huntingdon, Pa. In addition to the line east, the line was extended south to the Pennsylvania-Maryland line at Ellerslie, Md. The Bedford & Bridgeport Railroad was leased by the Pennsylvania Railroad Sept. 23, 1872.

The building of this railroad so near to the Georges Creek Coal Field in Maryland gave the operators of some of the coal companies the opportunity to have a line built to provide competition with the Baltimore and Ohio Railroad. The Maryland Coal Company and the American Coal Company, the most important competitors to the Consolidation Coal Company, the owners of the Cumberland and Pennsylvania Railroad, promoted the Pennsylvania Railroad in Maryland which was incorporated in Maryland January 12, 1876 with a capital stock of \$35,000, a first mortgage of \$80,000 and a second mortgage of \$65,000 executed April 13, 1878, held by the city of Cumberland without interest for thirty years. The first rail was laid and the first spike driven at the State line on May 20, 1879. President Healey of the Pennsylvania Railroad in Maryland was present and delivered a short address. Mayor Read of Cumberland handled a tracklaying mallet on the first spike after a number of professionals had placed the rail in position.

The six and one-half mile line was completed to the Cumberland Narrows on June 17, 1879. The first plan of the Penn. R. R. in Md. upon reaching the narrows, was to follow along Will's Creek on the same side as the Cumberland and Pennsylvania and Baltimore and Ohio railroads, the B & O having trackage rights. There were then but two tracks through the narrows with ample room for a third track, which, as a matter of fact, was put in later by the B & O. The Cumberland and Pennsylvania management persuaded the management of the Pennsylvania Railroad in Maryland to put aside their planned condemnation proceedings and led them to believe that if they would bridge the C & P and Will's Creek to reach Cumberland on the other side of the valley the C & P would have no objection to the crossing of the Wharf track of the C & P. The Penn. R. R. in Md. went ahead with the construction of the bridge and the building of the new roadbed. The point of crossing the Wharf track was shortly reached. The C & P

authorities had changed their mind and effectively blocked further construction by placing a locomotive at the point of crossing. Because of the mountain on one side and the creek on the other there was no way to avoid the needed crossing. The C & P would run their engine to a switch, whenever a coal train was due but would return with the block engine as soon as their train had passed. The Penn. R. R. in Md. people watched their opportunity. One day, when the Wharf coal train had returned but before the block engine could be run back, a track gang of the Penn. R. R. in Md. tore up a rail just before the crossover and in addition placed ties on the rails completely preventing the return of the C & P engine. This protection made it possible to place in the crossing. When the Superintendent of the C & P learned what was going on he came from Mt. Savage by special engine and tried to force the barricade before the work had been completed. When he was not successful he ordered both C & P engines returned to Mt. Savage. The Penn. R. R. in Md. continued laying their track into Cumberland. A short time later, a large work crew of C & P trackmen, without warning, raised the level of their track at this point of crossing to such a height as to again make the crossing impossible. It was not until July 19, 1879 that the new road lapped the disputed crossing to again go into Cumberland. The strategy which induced the building on the second side of Will's Creek provided the route through the mountains for the Connellsville extension of the Western Maryland Railway.

The first train to operate over the Pennsylvania Railroad in Maryland was a freight train that entered Cumberland, Md. on December 2, 1879 going as far as Payne Spring Street. On December 15, 1879 passenger trains began running regularly with a schedule providing connections to Washington and New York. While some of the equipment, such as, coal hoppers and passenger cars, belonged to the Huntingdon and Broad Top Mountain Railroad the balance of the equipment and all motive power was furnished by the Pennsylvania Railroad (Pa.) until after the construction of the Georges Creek and Cumberland Railroad.

With the completion of the Pennsylvania Railroad in Maryland competition much more severe than the Chesapeake and Ohio Canal was now being furnished the Baltimore and Ohio Railroad. An alternate through route to many major cities and seaports was now available and much coal was to flow to the Pennsylvania Railroad export coal dock at South Amboy, N. J.

The Pennsylvania Railroad in Maryland and the Georges Creek and Cumberland Railroad were consolidated into one road on June 14, 1888 under the name of the Georges Creek and Cumberland Railroad. Through stock ownership, they came under the control of the Western Maryland Railway on January 17, 1907. The Penn. R. R. in Md. trackage is still in use but at the present time the Pennsylvania Railroad (PA) runs an engine into the junction each business night for the train to State Line, Pa. Thereby providing another one of the desirable connections for shippers over the Western Maryland Railway.

Georges Creek and Cumberland Railroad

The American Coal Company and Maryland Coal Company, in the Georges Creek Valley, having been provided a competitive outlet to the Baltimore and Ohio Railroad in Maryland turned to the construction of a railroad from their property to connect with the new road as well as the other Cumberland outlets.

The Georges Creek and Cumberland Railroad as originally conceived was to be a narrow gauge line. The charter was granted by the State of Maryland on Dec. 21, 1876 and the railroad was organized the early part of 1879 with a capital stock of \$345,000 and a bonded indebtedness of \$500,000. authorized. The citizens of the Valley were quick to see the advantages that would accrue to them by having an outlet other than the Cumberland and Pennsylvania Railroad. There is mention of a Mr. James H. Percy, of Cumberland turning over one mile of right of way to encourage the construction of the new road.

On June 17, 1879, the directors of the Georges Creek and Cumberland awarded the contract for the construction and equipment of the road to Willis and J. N. Phelps of Springfield, Mass. The road was to be completed and in running order by March 1, 1880. The cost was to be \$600,000., including two carriage cars, one baggage car, one passenger engine, 200 hopper cars of sixteen ton burden and seven freight engines of forty-two ton weight. It was quite a contract when the tunnels and trestle work is considered. A single contract for timber required the furnishing of 1,500,000 feet of white pine timber for trestling. Grading and construction was started promptly.

The contemplated saving in distance between Lonaconing and Cumberland by the new route was to be about twenty per cent. The planned reduction of twenty-five per cent from the minimum rate for coal (two cents per ton per mile), charged by the old roads would still make the new road a profitable enterprise. A further advantage was in the fact that the road was to run along at the mouths of the coal drifts of several mines, thus doing away with the expensive planes. Another encouraging factor was the agreement made with Chesapeake and Ohio Canal Company for a period of twenty-seven years to limit the tolls collected on all coal coming from the Georges Creek and Cumberland to a maximum of forty cents per ton.

The first major engineering accomplishment to be reported was the finishing of the big tunnel on Jan. 28, 1880. This tunnel, bored by contractors Pratt and Shepherd, is 498 feet in length, 16 feet wide with an average height of 18 feet. The work was begun July 1, 1879 by Humbird & Co., the original contractors, the change to Pratt and Shepherd being made on July 28, 1879. The shorter tunnel is 281 feet in length.

The grading and track laying started at the Cumberland narrows at the point of junction with the Pennsylvania Railroad in Maryland. As the road bed heads from the narrows it turned left around the base of the mountain at the point where Will's Creek and Braddock's Run meet and shortly began to face the grade working up in back of Clarysville. It was at Clarysville that the hospital for Confederate

soldiers was located. Construction at this point was about five hundred feet above the Eckhart Branch of the Cumberland and Pennsylvania Railroad.

On June 1, 1880, grading from Cumberland had reached Pompey Smash, the summit of the line, and on June 3, 1880, grading was commenced in the town. Track laying kept up with the grading work so that by July 1, 1880, locomotives were running to Winchester Bridge and on Sept. 1, 1880, the first locomotive reached Pompey Smash, a distance of $11\frac{1}{2}$ miles from Cumberland and 1230 feet above Cumberland with an average grade of nearly 140 feet to the mile. The steel rail purchased in Reading, Pa. weighed sixty-seven pounds to the yard and was joined by plates two feet in length.

One of the prime objectives of the road became an accomplished fact when the road reached the Jackson mine of the American Coal Company in the middle of November, 1880. Shipments of coal to South Amboy, N. J. via the Pennsylvania route began in December, 1880.

Up to this point the guiding men in the G. C. & C. were Mr. Henry Loveridge, president of the railroad and also of the Maryland Coal Company and Mr. Gardner P. Lloyd, treasurer of the Railroad and president of the American Coal Company. It was their determination that successfully completed the road. Mr. Lloyd looked after the financing while Mr. Loveridge was the administrator who set the policies of the road.

With these two capable men we now learn of a third, Mr. James A. Millholland, who was the general manager, and later on, the president. It was an outstanding team with each man an outstanding man in his position. Mr. James A. Millholland was the son of Mr. James Millholland, the locomotive designer and builder who had such influence on the Reading Railroad. Mr. James A. had much of his father's natural ability to improvise with the further ability to organize and direct. He was a strict railroader and was always Mr. Millholland to the employees when he was present, but when separated he carried the respectful name of "Jeems." The G. C. & C. paid Mr. Millholland \$750 per month with a rent free home for many years. As a matter of fact, when he became President of the railroad his salary was not increased as it wasn't felt his responsibilities had increased any, he having been the real head for some time and the new title was simply to help him do his work.

Much progress had been made by the Georges Creek & Cumberland by the end of 1880. The road was constructed all the way from Lonaconing to a connection with the Pennsylvania Railroad in Maryland; most of the stations were completed and motive power in operation. The problem of reaching the Chesapeake and Ohio Canal had not been solved because the Baltimore and Ohio would not permit the needed connection. It doesn't appear as though the Georges Creek and Cumberland was quite prepared for this delay because it would seem that the State of Maryland had provided the authorization for such a connec-



Tower at Georges Creek Junction. Tracks to left of bridge are Georges Creek and Cumberland. Tracks over the Bridge are Connellsville Extension which began at this tower. The tower has been removed. This picture taken about 1915.



Original roundhouse of Georges Creek and Cumberland at Cumberland about 1885.



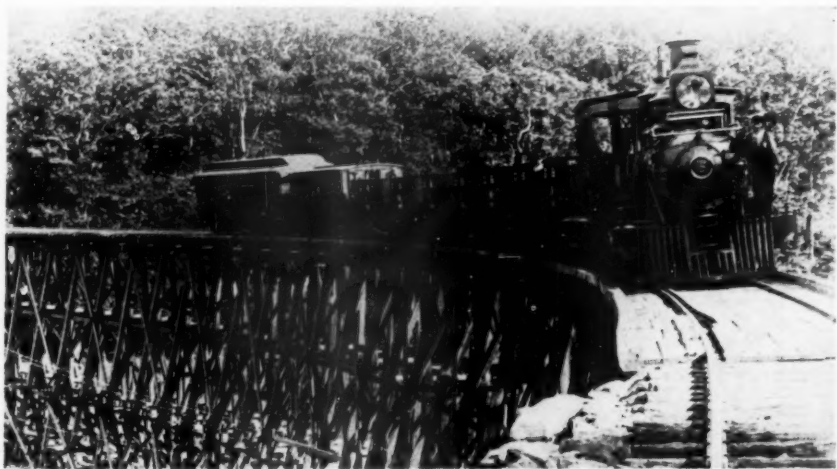
Geor



Georg
use o
was



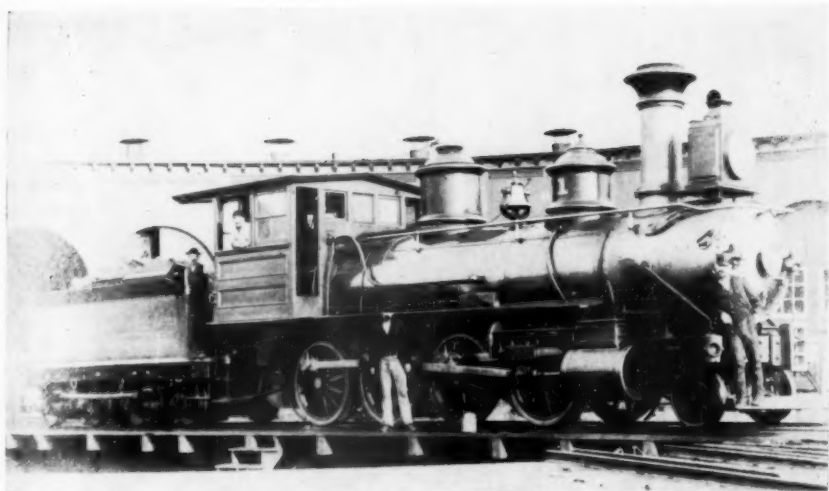
Georges Creek and Cumberland—Clise's Hollow Viaduct after being replaced by steel structure. Picture taken 1898.



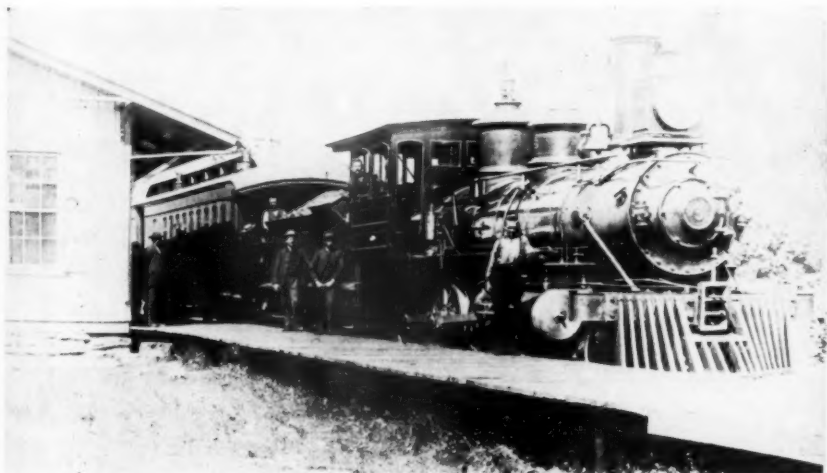
Georges Creek and Cumberland 6 on Clise's Hollow Viaduct. Train going up the mountain. Note economical use of motive power by using passenger engine to pull empties while providing passenger service. Picture was taken about 1895.

Georg
about

Georg
laken



Georges Creek and Cumberland 1, Pittsburg, 2/27/1880, #396. Picture taken at Cumberland, Maryland about 1895.



Georges Creek and Cumberland 6—Pittsburg 8/3/1882 #584. Their only 4-6-0, passenger engine. Picture taken at Vale Summit Station about 1895.



George
and
Pictu



The t
Sulphu
was ri



Georges Creek and Cumberland—The Narrows—tracks to left are G. C. & C. to right are Cumberland and Pennsylvania and Baltimore and Ohio. The bridge is the old route 40 bridge over Wills Creek. Picture taken about 1883.



The tracks on the bridge crossing Wills Creek are Cumberland and Pennsylvania. The road shown is Old Sulphur Hollow Road over which the Georges Creek and Cumberland was built (later Western Maryland). It was right at this point that the crossing was eventually put down. Picture taken about 1870.

ti
o
e
b
C

r
P

T

G

r
G
a
C
r
f
t
e
t
h
t
p
a

l
n
C
o
a
C
s
v
e
v
C
P
H
a

tion when the Baltimore and Ohio made a settlement with the State of Maryland. On Jan. 20, 1881, the Circuit Court confirmed the condemnation against the Baltimore and Ohio Railroad, the Cumberland and Pennsylvania Railroad and the Consolidation Coal Company, thus opening the way to the Chesapeake and Ohio Canal.

It was into March 1881 and the Baltimore and Ohio Railroad still refused connection so the following memorial was sent to the Board of Public Works of the State of Maryland.

MEMORIAL
OFFICE OF THE
GEORGES CREEK AND CUMBERLAND
RAILROAD COMPANY,
NEW YORK, MARCH 5TH, 1881.

To the Honorable, the Board of Public Works of the
State of Maryland,
Annapolis, Md.

Gentlemen:

The Georges Creek and Cumberland railroad company respectfully represents to your Honorable body that it was incorporated under the General Laws of the State of Maryland for the purpose of constructing a railroad from the coal mines at or near Lonaconing to the city of Cumberland, and that it has now completed the construction of its road and fully equipped the same at a large cost, and is now ready for the transportation of coal from the mines to Cumberland, and that the main purpose of the heavy outlay made in the construction and equipment of its road was to provide a means of delivering coal from the mines to the canal at Cumberland, at much lower cost than the hitherto oppressive charges which had such a depressing influence upon the coal industry of the State as to render it absolutely necessary for parties interested therein to undertake the construction of an independent road as an essential measure of relief if the trade was to be at all maintained.

This road having been completed to a point in the city of Cumberland on the south side of the tracks of the Baltimore and Ohio railroad near Hanover street, and upon land immediately adjoining thereto, the G. C. & C. R. R. Co., under the power and authority given by the Act of 1878, chapter 155, and more particularly the fifth section thereof, and the contract between the B. & O. R. R. Co. and Chesapeake and Ohio canal company and the State of Maryland, made in pursuance of said Act, applied to the B. & O. R. R. Co. for a connection of its road with the railroad of the B. & O. R. R. Co. at a point at and within said city of Cumberland thirty feet westwardly from the intersection of the west side of Hanover street extended across the tracks of the said B. & O. R. R., which point of junction with the tracks of the said B. & O. R. R. was made known to the B. & O. R. R. Co. by the G. C. & C. R. R. Co. The B. & O. R. R. Co. has dissented as to the point so designated and refused to permit that or any connection to be made, and therefore

the G. C. & C. R. R. Co. make this application to your Honorable Board for the exercise of the power and authorities vested in you by the laws of the State to approve such point of connection and determine the point or place where such connection shall be made and the rights of the parties in the premises as speedily as conveniently may be done.

The G. C. & C. R. R. begs leave to state that the main consideration on the part of the State for the passage of the Act referred to, by which large rights and claims of the State were surrendered to the B. & O. R. R. Co., was to secure the right of any railroad then existing, or thereafter incorporated, to make connection with the tracks of the B. & O. R. R. at or near Cumberland, or west thereof, and to bind the said B. & O. R. R. Co., its successors and assigns to receive and transport from such connection, over its main stem and the branches thereof, then or thereafter to be constructed, and to deliver at the basins of the C. & O. C. Co. on the line of said B. & O. R. R., all coal, lumber, pig iron, ores of all kind, and stone intended for shipment on said canal, and that the manifest object of these provisions was to protect the vast interests of the State in the C. & O. C., and to enforce the public policy of maintaining that great work and developing the mineral interests of the State, whose prosperity, and that of a numerous population identified therewith, largely depends on convenient and reasonably inexpensive access to the canal.

The purpose of the law was to oblige the B. & O. R. R. to act as a feeder to the canal, and prevent it from becoming a permanent obstacle to the coal interests of Western Maryland in any effort to reach the canal by means of their own independent roads, and from using the advantages of its geographical position surrounding the terminus and basins of the canal to exclude access thereto.

It is a fact of public notoriety that the only line of railroad heretofore connecting the coal region of this State with the C. & O. C. at Cumberland has been for some years under the control of the B. & O. R. R. Co., which is necessarily in competition more or less active with the C. & O. C. for the transportation of the coal of the region to tide water. Forced by the necessities of the situation, and encouraged by the canal company and the public policy further announced and sanctioned by the Act of 1878, the G. C. & C. R. R. Co., with the aid of the suffering coal interests of this region, embarked in the difficult and expensive enterprise of constructing its railroad to form an independent connection with the mines and canal entirely divested of any other interest or control but that which seeks a cheap and permanent communication between the sources of coal production and the public works of the State. The road is now in such a state of completion that as soon as the boating season opens, it will be able to deliver to the canal at a reduction in cost of at least twenty-five cents per ton large quantities of coal, which without the connection sought by this application can not obtain access to the canal and must necessarily be diverted therefrom to the great and lasting injury of the coal interests of the State, of the canal and of the large numbers of industries and useful citizens who are employed in the mining of the coal and in its transportation by the canal from Cumberland to tide water.

This work was not conceived in any spirit of speculation or of hostility to any of the public works of the State, but was designed to meet a condition of affairs that had been long felt and loudly complained of by every business interest, small and large, directly or remotely connected with the production of coal and its transportation by the canal.

The G. C. & C. R. R. Co. again respectfully ask that this matter of such grave importance receive the prompt and earnest attention of your Honorable Board, which is invested by the authority of the law with the power of securing to its road the rights asked for, and thereby protecting it and the people against the grievances complained of.

Respectfully,

(Signed) HENRY LOVERIDGE,
President.

On June 17, 1881, the Board of Public Works approved the connection with the Baltimore and Ohio Railroad at Polk Street, Cumberland, and a large force was then put to work preparing the road bed and laying the tracks for the connection. The work was finished July 21, 1881. Things were being readied for complete operation by June 25, 1881, when the telegraph batteries were placed in position in the offices along the line and communications commenced.

On July 11, 1881, the first passenger trains were run, with the schedule of three trains each way each day. The first train in the morning had on board President Loveridge and General Manager Millholland. A large number of passengers were carried during the day. The crew was composed of W. H. Wharton, Conductor, formerly with the C. & P. as a brakeman; Angus McAtee, brakeman; Thomas Lowry, engineer, and M. Welsh, the fireman. There were seven flag stop stations and four regular stations; Cumberland, Pompey Smash (later named Vale Summit), Midland and Lonaconing.

On Jan. 24, 1883, about two o'clock in the afternoon, a coal train of twelve scows, fifty-one hoppers and three locomotives, going east at Montell's, ran away. At Percy's trestling the front locomotive and scows became detached, the rear locomotives and fifty-one hoppers leaving the track and going over the trestling for a fall of twenty feet, carrying five men, three being killed and two seriously injured; seven men saved themselves by jumping. The report indicates no blame was attached to any one as everything possible was done to arrest the flight of the train. It was stated that the accident was due to defective brakes on the B. & O. hoppers. The two damaged locomotives were taken to the Mt. Savage shops of the C. & P., which shows that in those hard days there was a helping hand for a competitor in trouble. It wasn't until Feb. 6, 1883 that operations were again resumed.

It was also in 1883 that the Georges Creek and Cumberland completed the bridge over the Cumberland and Pennsylvania at Knapp's meadow to reach more coal properties. This bridge is a part of the road that is still in use as of today.

Business continued to expand so that in the fall of 1884 it was found necessary to double the size of the roundhouse at Cumberland.

Following the completion of the Georges Creek and Cumberland, their locomotives hauled the trains over the Pennsylvania Railroad in Maryland to State Line. Some of these trains required four locomotives, and it was seldom that three were not required. On June 14, 1888, in accordance with an act of the Maryland legislature, the Georges Creek and Cumberland and the Pennsylvania Railroad in Maryland were consolidated into the one system under the name of Georges Creek and Cumberland—thus the road expanded.

On June 30, 1894, while a train was crossing Clise's trestle near Vale Summit, an axle broke, causing a wreck, whereby four fully loaded coal cars fell nearly one hundred feet into the ravine. Conductor Hughes was injured seriously.

The Georges Creek and Cumberland was known as, and it was, a prosperous enterprise. It was well-managed and well-maintained. One reason for the prosperity was the agreement made between Mr. Millholland and Mr. H. J. Cassatt of the Pennsylvania for the proportion of the through rate. This was known as a lateral.

Directors' meetings were held each month at which time the directors in attendance each received a \$20.00 gold piece. It has filtered through that after the meetings it became quite likely for all of them to go to a bar run by "Julius" in the basement of No. One Broadway, New York, N. Y.

On Jan. 17, 1907, the Western Maryland Railroad Company purchased stock of the Georges Creek & Cumberland amounting to 19,993 shares for which was paid \$1,829,600.29. The new directors became:

B. F. Bush, Baltimore, Md.
Henry E. Cooper, New York, N. Y.
Frederick T. Gates, Montclair, N. J.
George J. Gould, Lakewood, N. Y.
Lawrence Green, New York, N. Y.
Alvin W. Krech, New York, N. Y.
Winslow S. Pierce, Bayville, L. I., N. Y.

This was at the time Mr. George Gould and associates, through the Wabash Railroad, bought control of the Western Maryland Railroad. Mr. Bush, the new President of the Georges Creek and Cumberland, was also President of the Western Maryland Railroad as representative of the Gould interest. He was a very able administrator. The purchase of the Georges Creek and Cumberland was a part of his plan to build a connection with the Wabash-Pittsburg Terminal Railway and thereby bypass the purchases made by the Baltimore and Ohio Railroad in its efforts to block Mr. Gould.

The Gould interests extended themselves in buying control of the Western Maryland Railroad, the West Virginia Central and Pittsburg and the Georges Creek and Cumberland as a means of building

a link to the Wheeling and Lake Erie. They lacked the resources needed to build the additional lines necessary for a connection. The financial panic of 1907 put the Western Maryland, Wheeling and Lake Erie and Wabash-Pittsburg Terminal in receivership. Mr. Bush was appointed receiver for the Western Maryland and continued as President of the Georges Creek and Cumberland. When the receivership was terminated, Mr. Bush was again elected the President of the Western Maryland. With Rockefeller encouragement he continued his efforts toward making the Western Maryland a trunk line by the connection contemplated by the Goulds and which was eventually built.

On July 1, 1913, the Western Maryland Railway took over the operation of the Georges Creek and Cumberland Railway and it was merged with the Western Maryland under an agreement of consolidation, dated January 23, 1917, and thus, the Georges Creek and Cumberland went out of existence.

During 1939 the Western Maryland made a trackage agreement with the Cumberland and Pennsylvania so that they could run trains from Westernport to Lonaconing. This made it possible to abandon 13.2 miles of track from Georges Creek Junction to Midland and still reach the mines on the old G. C. & C. This abandonment eliminated two tunnels and the bad trestles with the resultant saving in cost of maintenance.

All of the engines purchased by the Georges Creek and Cumberland were in operation when taken over by the Western Maryland. While I can find no record of the engines being stenciled Western Maryland they were included in the Western Maryland roster as 1-10 inclusive:

<i>W.M.</i>										
<i>No.</i>	<i>Class</i>	<i>Type</i>	<i>Cyl.</i>	<i>B.P.</i>	<i>Driv.</i>	<i>Wt.</i>	<i>Built</i>	<i>Builder</i>	<i>Bld. #</i>	<i>Disposition</i>
1	H-1	2-8-0	20x24	125	50	95,700	2/27/1880	Pittsburgh	396	Scrapped 1915
2	H-1	2-8-0	20x24	125	50	95,700	2/27/1880	Pittsburgh	397	Scrapped 1914
3	H-1	2-8-0	20x24	125	50	95,700	2/27/1880	Pittsburgh	398	Scrapped 1915
4	H-1	2-8-0	20x24	125	50	95,700	2/27/1880	Pittsburgh	399	Scrapped 1914
5	H-1	2-8-0	20x24	125	50	95,700	3/23/1880	Pittsburgh	400	Scrapped 1916
6	G-2	4-6-0	18x24	140	50	85,000	8/3/1882	Pittsburgh	584	Scrapped 1917
7	H-2	2-8-0	20x24	150	50	106,370	9/7/1888	Pittsburgh	1013	Sold to Reliable Junk Co. 12/1916
8	H-2	2-8-0	20x24	150	50	106,370	6/16/1890	Pittsburgh	1143	Sold to Reliable Junk Co. 12/1916
9	H-2	2-8-0	20x24	150	50	106,370	3/21/1891	Pittsburgh	1227	Sold to Reliable Junk Co. 12/1916
10	H-2	2-8-0	20x24	150	50	106,370	2/26/1895	Pittsburgh	1541	Sold to Reliable Junk Co. 12/1916

The principal rolling equipment other than the locomotives, were the coal hoppers which were in good supply. For the most part only one passenger car was needed on a train and it was the economical practice to drag eight to ten empty hoppers up the hill in addition to the passenger car on the scheduled passenger runs and in this way make better use of the motive power. There was also an observation car, built by

the G. C. & C. which had a top like any other passenger car but which, had the sides removed with the exception of a railing. This car was used to take political outings and picnics of other organizations over the road and provided an opportunity to enjoy the view from the sides of the many hills.

The report to stockholders as of June 30, 1910, showed the following trackage in miles.

	<i>Main Track</i>	<i>Second Track</i>	<i>Siding</i>
Main Line			
Cumberland to New Detmold, Md.	21.36	1.04	6.31
Branches and Spurs			
B. & O. R. R. connection at Cumberland	.83		2.30
G. C. Jct. to Pennsylvania State Line	4.54		4.81
Midland Jct. to Jackson, Md.	4.86		1.37
Koontz Switch to Koontz, Md.	.94		
Total	<u>32.53</u>	<u>1.04</u>	<u>15.49</u>

On May 15, 1939, the Interstate Commerce Commission authorized the abandonment from Narrows Park, Md. to Midland, Md., a distance of 13.29 miles of main line track. To reach the mines yet to be serviced, trackage rights were arranged over the Cumberland & Pennsylvania Railroad from Westernport, Md. to Lonaconing Jet., Md., a distance of 9.99 miles. The remaining main line having connection at G. C. Jct. is now .4 miles in length and serves oil stations located along the National Highway No. 40.

Many of the mines of the Georges Creek district have become uneconomical to operate and many have been dug out, so it can be written that the Georges Creek and Cumberland Railroad has served its purpose, even though it was under the charter of the Georges Creek and Cumberland Railroad that the Maryland portion of the Connellsville extension was built.

The Connellsville Extension of The Western Maryland Railway

About 1901, the Gould interests as headed by Mr. George Gould, acting through the Wabash R. R., purchased and built railroads into Pittsburg. To accomplish this he purchased the Cleveland and Wheeling Railroad which was reorganized into the Wabash-Pittsburg Terminal Railway. As part of his plan he went to the governing authorities of the city of Baltimore, which was a large stockholder in the Western Maryland Railroad, and convinced them that his plan for a trunk line was good for the city of Baltimore to such an extent that the city sold its holdings to the Gould interests. Having control of the Western Maryland, Mr. Gould announced his intention of connecting the Western Maryland Railroad and the Wabash-Pittsburg Terminal Railroad. This announcement put the Baltimore and Ohio Railroad on guard and the B. & O., through the Consolidation Coal Company, which they controlled, purchased a large amount of property in the locations where Mr. Gould would probably build. In such ways Mr. Gould, who was reaching the end of his resources, found himself blocked by other financial interests so that the plan for a single transcontinental railroad to be made of the merger of the Western Maryland, Wabash, Missouri Pacific, Denver and Rio Grande and Western Pacific was not accomplished.

In spite of all the blocks the B. & O. had placed before the plan to build the connection, it would seem that the Goulds and their associates had the route for the right of way when they very smartly purchased the Georges Creek and Cumberland Railroads through the Western Maryland. The financial panic of 1907 put the Western Maryland, the Wheeling and Lake Erie and the Wabash-Pittsburg Terminal all in receivership and marked the end of the Gould dream.

The plan to build to Pittsburg continued to persist, and it was evident to the Western Maryland Management that if they were to be other than a local road this connection would have to be built. Gould influence was still strong in the Western Maryland as shown by the Board of Directors of 1910:—

B. F. Bush—President
Henry E. Cooper
Frederick T. Gates
George J. Gould
Alvin W. Krech
Edgar L. Marston
Winslow S. Pierce
Alexander Robertson
W. A. Wilbur

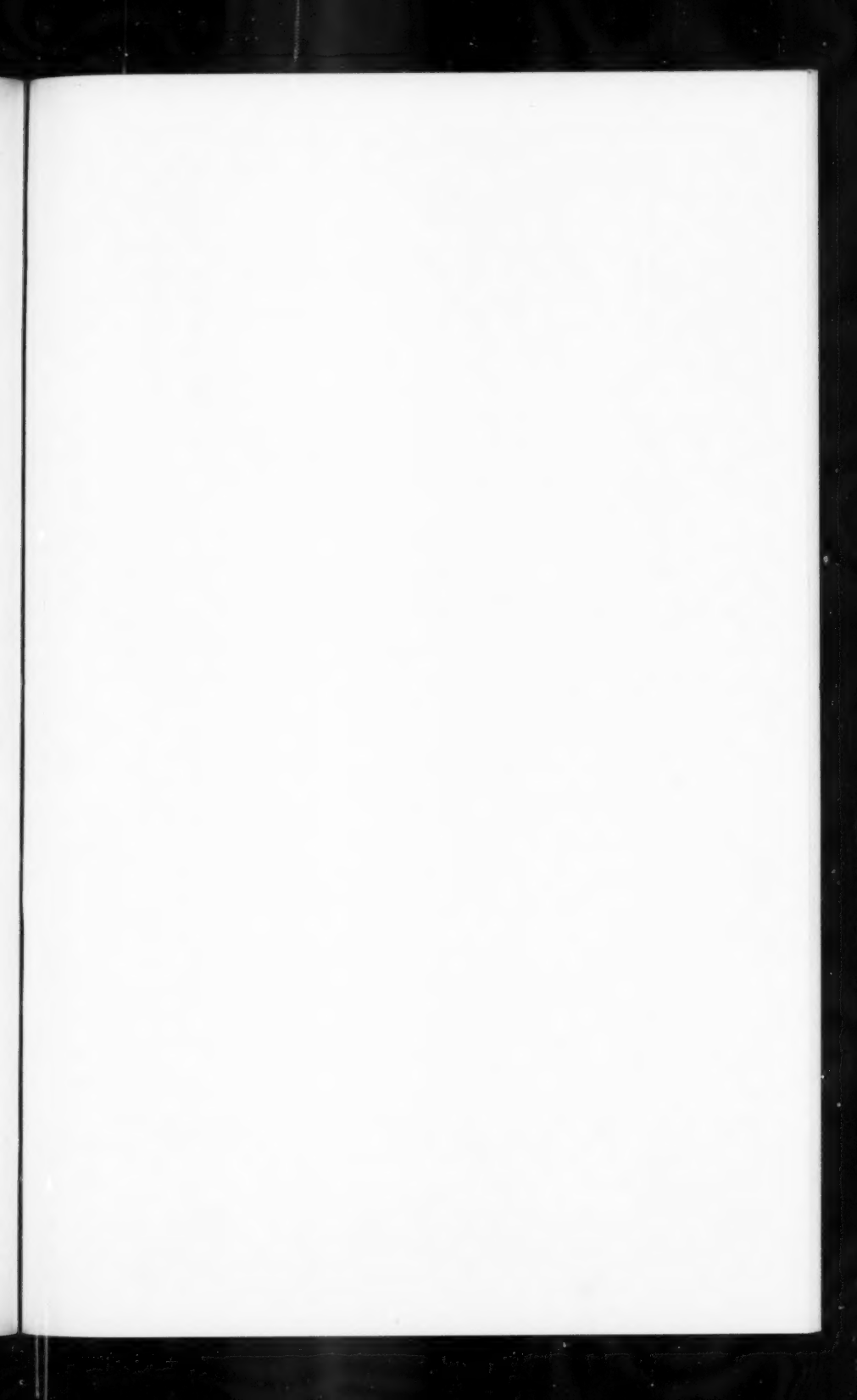
In addition to Mr. Gould, Mr. Bush was one of the Gould representatives. When Mr. Bush left the Western Maryland, he became president of the Missouri Pacific, another Gould railroad. The Rockefeller interests were represented by Mr. Frederick T. Gates.

That construction would soon be started was indicated by the traffic alliance made with the Pittsburgh and Lake Erie on January 14, 1910. A special meeting of Western Maryland stockholders was held March 31, 1910, which provided for the sale of the needed capital stock. The so-called "New Line" or Connellsville extension was started in April, 1910, by the Georges Creek and Cumberland which was to build to the Pennsylvania State line from Cumberland. The portion from the Pennsylvania State line to Connellsville was to be constructed by the Connellsville and State Line Railway Co. which was incorporated on April 26, 1910. The Western Maryland had full ownership of both railroads.

The reasons for the construction of the connecting link between Cumberland, Md. and Connellsville, Pa. having been found sufficient to warrant undertaking the work, engineering problems presented remained to be solved. The most important problem in this work was to secure a line of as low grade as possible, especially in the matter of grades adverse to the heavy traffic. This was to be done on what is mountain work for the entire distance. As measured on the map, the air line distance from Cumberland to Connellsville is about fifty miles. Between them lie the Allegheny mountains. When the roughness of the country is considered, the skill with which the line was located is shown by the almost perfect smoothness of the profile as it rises on either side from Cumberland and Connellsville to the summit of the Alleghenies.

The most difficult portion of the construction was from Cumberland to the Summit Cut. By air line this is about 9 miles; by the railroad 23.5 miles. This additional distance is due to the need for winding about the mountains as the grade ascends. The mountains were so steep in places that many construction problems were presented in bringing in the shovels. At one time they had to take a shovel 1.3 miles so as to reach a spot but 360 feet from the point of departure. On this east slope, or against west bound traffic, the grades run from 61 feet to 92 feet to the mile or from 1.15 to 1.74 per cent. Most freight trains have either two or three heavy freight engines of the 1100 (2-10-0) or 1200 (4-6-6-4) class, at least to Deal Tower. There are three tunnels on this east slope; Brush tunnel, 872 feet long; Borden tunnel, 850 feet long and Big Savage tunnel, 3300 feet long. While the railroad is only double tracked from Cumberland to Big Savage tunnel, the entire road was constructed so that it could be double tracked with the exception of Big Savage tunnel. It is estimated that 2,500,000 cubic yards were excavated up to the Big Savage tunnel, but as the fill was about the same there was no waste.

After passing Big Savage tunnel on the way West the line continues to rise to Allegheny Cut. It then starts down on a grade of 34 feet to the mile, increasing at times to 42 feet to the mile as a maximum, dropping as low as 16 feet until Harnedsville is reached. This is against the eastbound traffic to the seaboard and it presents a smooth almost uniform rise and with the maximum grade against traffic of 42 feet to the mile. This had great advantages at the time of construction in comparison to the Pennsylvania Railroad with a maximum of 79 feet





The foundations of the Salisbury Viaduct. April 26, 1911

THE UNIVERSITY OF MICHIGAN LIBRARY



This machine was rented by the Western Maryland and used by them in tracklaying on the Connellsville Extension. This picture was taken on September 25, 1911 on the grade leaving Cumberland.



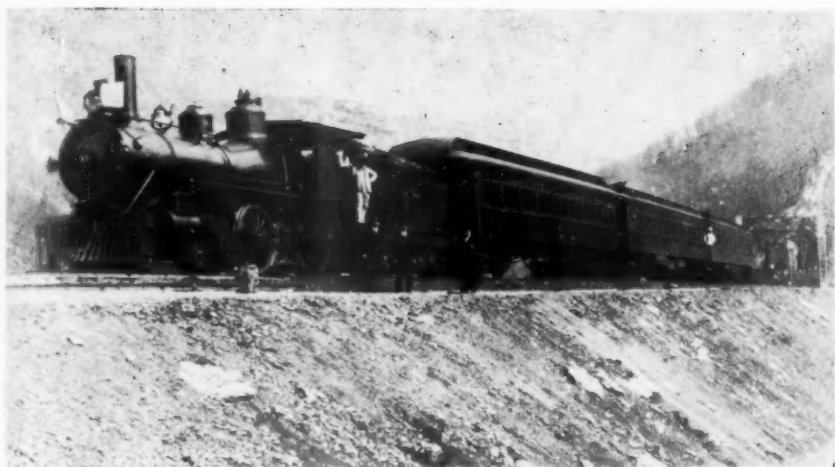
Station of Western Maryland at Confluence, Pennsylvania. No longer any passenger service but operator is here 24 hours a day. Picture taken July 20, 1951.



Western Maryland Station at Frostburg, Maryland. April 9, 1944

We
Juc

We
Hol



Western Maryland 45 with first train on (note not over) Connellsville Extension, just west of Georges Creek Junction. Picture taken 4/28/1911.



Western Maryland 1115 class 1-2 2-10-0 pulling drag up Savage Mountain. Picture taken at Wood Cock Hollow above Mt. Savage, Md. April 4, 1944.

W

We



Western Maryland 1206, class M-2, leaving Maryland Junction with drag for Connellsville, July 20, 1951



Western Maryland 1212 leaving ready track at Ridgeley, W. Va. to be a pusher over Connellsville Extension. August 18, 1946.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

C
L
T

a
V
d
n

a
f
r
o

to the mile and the Baltimore and Ohio Railroad with from 53 feet to 62 feet to the mile.

During the early part of the western descent the line passes over rolling country and follows Flaugherty Creek which it crosses on the Keystone Bridge just before reaching Meyersdale, Pa. Below Meyersdale the railroad reaches the bank of the Casselman River which it crosses by means of the Salisbury viaduct. This viaduct is the longest bridge structure on the road, having a length of 1908 feet and a maximum height above high water of 101.3 feet. In addition to crossing sloping meadowland and the Casselman River, it also crosses the Baltimore and Ohio Railroad which is following the river valley. From this point on the railroad is close to the precipitous banks of that stream on the Youghiogheny into which it empties as it goes down to Connellsville, Pa.

Just west of Markleton is Pinkerton tunnel, which is 825 feet in length.

The road which gives the impression of thoroughness and exactness, was built with the exception of the track laying done by the railroad, by the Carter Construction Company of Chicago, Illinois. Mr. H. R. Pratt, Chief Engineer of the Western Maryland Railway, looked after the railway's interests in a manner that will always reflect to his credit. Preliminary operation between Cumberland and Connellsville commenced August 1, 1912.

The Western Maryland report to stockholders, dated December 31, 1916, shows the cost of the road:

Georges Creek and Cumberland	\$ 5,529,595.63
Connellsville and State Line	10,277,569.23
Total	<hr/> \$15,807,164.86

In this total were the locomotives purchased for the account of the Connellsville and State Line Railway. These locomotives were all lettered Western Maryland and their numbers have never been changed. These locomotives are—

156 to 160
707 to 736
955 to 959

The Georges Creek and Cumberland Railroad and the Connellsville and State Line Railway lost their identity and were absorbed into the Western Maryland Railway Company on July 1, 1913. It was on this date that operation was taken over, even though consolidation was not made until January 23, 1917.

The construction of the Cumberland-Connellsville Line forming a through connection with the lines of the West, resulted in a transformation over the entire system. Bridges had to be strengthened, new rail laid, yard facilities revised and engine terminals enlarged. In order to permit the use of heavy power 22 bridges on the main line

between Hagerstown and Baltimore were renewed in 1913. The seaboard terminal at Port Covington, (Baltimore, Md.) was improved.

At Cumberland many revisions were needed—such as:

Double track of main line from Georges Creek Junction to Maryland Junction.

New steel double track bridges over the Potomac River and Wills Creek.

New passenger station and freight station.

Expansion of the Ridgeley Yards.

New engine terminal at Ridgeley.

These have been listed to show some of the problems created.

The line when placed in operation was operated by train order and manual block. On June 30, 1915, a contract was made to provide electric automatic block signals. This afforded protection on all main line single track between Baltimore, Md. and Connellsville, Pa. Improvement in signal operation has made it possible to make many refinements, all of which improve operation. In 1950 the Colmar tower on the east side of Big Savage tunnel was removed and the switch controlled electrically at Deal, which is at the West side of the tunnel and the place where the pushers are cut off.

Passenger service over the new line must have been started with great hope, at least there was great ballyhoo. A time table of 1916 names the Western Maryland as "The Mason Dixon Line" and calls the route "The Scenic Short Line." The equipment was thoroughly up to date with electric lighted trains, Pullman observation cafe cars, steel sleeping cars and vestibuled coaches. There were two trains in each direction daily. These through trains ran over the Western Maryland between Baltimore, Md. and Connellsville, Pa.; the Pittsburgh and Lake Erie between Connellsville, Pa. and Youngstown, Ohio; the Erie between Youngstown and Cleveland, Ohio; and the New York Central between Cleveland and Chicago, Illinois. While this route seems quite complicated, I have been told by a gentleman who used the route, that he always considered the service the very best. The CHICAGO EXPRESS was operated from October 27, 1912 to May 27, 1917. To reach the Connellsville station it was necessary that trackage rights be arranged with the Pittsburgh and Lake Erie to the extent of .02 miles, which was from the west side of Ashman Avenue to the passenger station. The new line, as conceived, was for through freight traffic and it wasn't long before it was determined that passenger business was not profitable. Passenger service on the Connellsville Extension was terminated June 14, 1931.

There are three other railroads which it is proper to consider with the Connellsville Extension. They are the Somerset Coal Railway, the Fairmont Helen's Run Railway and the Fairmont Bingamon Railway. All of the capital stock was owned by the Western Maryland Railway Company. All these roads were merged into the Western Maryland Railway Company on January 20, 1950, on which date they lost their corporate identity.

Only because satisfactory trackage arrangements were made with the Baltimore & Ohio Railroad in 1915 were these roads constructed.

The arrangement provided for use of B. & O. tracks between Rockwood Junction, Pa. and Coal Junction, Pa., the connection with the Somerset Coal Railway, a distance of 21.7 miles, and between Connellsville, Pa. and a point near Chiefton, W. Va., a distance of 80 miles. Near Chiefton connection was made with the Fairmont Helen's Run Railway and the Fairmont Bingamon Railway. It was necessary to construct from Bowest to Bowest Junction to make connection with the B. & O. at Connellsville. This is a distance of 1.45 miles.

The Somerset Coal Railway was incorporated May 29, 1915, in Pennsylvania and the first piece of track was completed October 1, 1915, from Coal Junction to Mine No. 123 of the Consolidation Coal Co., a distance of 2.2 miles. The completed line is as follows:

	<i>Main Line</i>	<i>Siding</i>
Coal Junction, Pa. to Bell, Pa.	4.22	1.63
Gray Junction, Pa., to Gray, Pa.	.50	.84
Branch to Quemahoning Coal Co. Mine	.93	.11
Total	5.65	2.58

Trains and crews for the Somerset Coal Railway originate at Ridgeley and the board showing engine and time called has the letters "GL" because the line is referred to as the Gray Line. The operating agreement with the Western Maryland Railway is dated September 25, 1915.

The Fairmont Helen's Run Railway was organized in West Virginia, July 16, 1915. This line was completed the early part of 1916 from Chiefton, W. Va. to Idamay, W. Va. with a branch to Carolina, W. Va. At each location there are coal mines.

The completed line is as follows:

	<i>Main Line</i>	<i>Siding</i>
Chiefton, W. Va. to Idamay, W. Va.	4.64	5.98
Carolina Junction, W. Va. to Carolina, W. Va.	1.60	1.29
Total	6.24	7.27

Trains and crews for this line run out of Bowest, Pa. The operating agreement with the Western Maryland Railway is dated September 21, 1916.

The Fairmont Bingamon Railway Company was organized in West Virginia, January 21, 1916. There was considerable delay in securing needed material for steel bridges so that this line was not completed and in operation until July 1, 1917. The road was built to serve three coal mines at Wyatt, W. Va. The line runs from Hutchinson, W. Va. to Wyatt, W. Va. with main line trackage of 8.47 miles and siding of 5.46 miles. Trains and crews for this line run out of Bowest, Pa. The operating agreement with the Western Maryland Railway is dated December 17, 1917.

The Somerset Coal Railway, the Fairmont Helen's Run Railway and the Fairmont Bingamon Railway Co. were all operated by the Baltimore and Ohio during Federal Control January 1, 1918 to March 1, 1920.

While Mr. Gould's name was not on the Board of Directors from 1917 on, one of the early plans was achieved in 1931 when a connection was made with the Pittsburg and West Virginia, the successor road to the Wabash-Pittsburg Terminal Company. This provided the Western Maryland with two connections at Connellsville—the Pittsburg and Lake Erie at Dickerson Run and the Pittsburg and West Virginia at Bowest. Today when a train is made up at Hagerstown to be run over the New Line, the connecting road is considered so that the through trains are not all switched at Ridgeley. A 1400 or a diesel will bring the train into the Ridgeley yards. The needed motive power will be ready upon train arrival to take the train over the hill. The lead engine will be at the west end of the yard. If the train is to have two pushers, one will be found at a standby switch about the middle of the train and the rear pusher will be ready to leave the engine yard. As soon as the incoming engine is cut loose and cleared, the lead engine is backed on to the train. The train is cut at the point near the engine for the middle of the train and it is run in. The caboose on the incoming train was cut off as the train came in, so while the movement was being handled at the front end, the caboose for the new crew is placed and the rear pusher engine coupled up. This business-like manner of handling the power change-over seldom requires an hour and then the train is on its way to Connellsville. The pushers are usually cut out at Deal, on top of the mountain. There they turn on the wye to return to Cumberland.

Once over the mountain going west and the pushers released, it is an easy trip to Connellsville. Just east of Keystone Bridge and west of Sand Patch is the connection with the B. & O. This connection is used in time of trouble over the mountain by either road returning to their own tracks at Cumberland.

West of Meyersdale the trains cross on the Salisbury Viaduct. It is quite a thrill to ride over the valley, to look down and see the long legs of the trestle and then to realize what a substantial structure it is. Except for the Pinkerton tunnel and the Salisbury Viaduct, both of which were built for double track but are used for single track, there are no outstanding pieces of construction between the summit of the mountain and Connellsville, Pa.

The stations in use at the present time in their order from Cumberland are:

	<i>Miles</i>
Frostburg	15
Meyersdale	32
Rockwood	44
Confluence	61
Ohio Pyle	72

Just west of the Rockwood station is a coal dock where all trains, both east and west, stop to replenish supplies and the train conductor calls in to the train dispatcher to report his train.

The trip east with its more gradual grade does not present any great problems other than the descent from Big Savage Mountain to

Cumberland. Instructions call for the trainmen to have retainer valves turned up in high pressure position on loaded freight cars. It is also required that trainmen ride out on freight trains between Colmar and City Junction. At one time, all freight trains were required to stop at Mt. Savage for 20 minutes. This not only kept the train under control but permitted the brakes to cool off. Before the days of our present braking equipment there were three or four runaways. There was one where the train got away at the top of the mountain and came all the way down, staying on the track until G. C. Junction, where the rim of a wheel on the locomotive, because of the heat, expanded and came off. All tracks had been lined up and all crossings through Cumberland guarded so that the train could continue until stopped by elevation. There was quite a pile up, but it did prove that the tracks and roadbed as laid out were built far beyond the stress placed by normal operation.

Most time tables give a running time between points as a schedule to maintain. Coming down the east side of the mountain we have the opposite, a schedule that must not be exceeded.

	<i>Miles</i>	<i>Minutes</i>
Colmar to Frostburg	6.2	17
Frostburg to Lap	6.7	18
Lap to G. C. Junction	6.7	18

To anyone in the vicinity of the "New Line" it would be well worth the time just to see a WESTERN MARYLAND FAST FREIGHT go speeding through. It is a precision operation and could only be done by good workmen and good management working together. If you are a shipper, you should be impressed by the "get through know how" manner in which your goods is delivered.

The Cumberland And Pennsylvania Railroad

In Bulletin No. 66 I wrote the history of the Cumberland and Pennsylvania Railroad as an independent railroad, mentioning that on May 3, 1944, the Interstate Commerce Commission approved the request of the Western Maryland Railway Company to permit the purchase of the capital stock of the Cumberland and Pennsylvania Railroad from the Consolidation Coal Company. The stock was purchased on May 12, 1944. In this way the Western Maryland again has its own line into the Georges Creek district, even though the C & P is still an independent company.

The C & P was under Western Maryland guidance once before when it was assigned to the Western Maryland during Federal Control, January 1, 1918, to March 1, 1920.

The track from Corriganville to State Line has fallen into disuse and is no longer maintained. The Western Maryland is using the tracks of the Pennsylvania in Maryland. Maintenance on the Eckhart Branch was stopped on January 1, 1951, and it would appear this line will shortly be abandoned. The Hoffman mine has closed down. The wye out of Mt. Savage has been torn up and the old valley track relaid from Mt. Savage to Borden. While this has greater grade, the present motive power has no trouble making the trip.

Many of the old shop buildings have been torn down, some have been leased and a portion is used as a shop for automobile maintenance.

There are no C & P engines on the C & P. As a matter of fact, the only known Mt. Savage engine in existence is old No. 32, which is still numbered No. 32 on the Winchester and Western. Her days are numbered and when she goes the last work of another engine-building organization passes on.

While the coal output has declined to only a small portion of what it was at one time, the C. & P. has benefited by the expansion of the fire brick industry at Mt. Savage and Zihlman, Md. Further plant enlargement is now going on and there should be heavier hauls in prospect.

It may be the future of the C. & P. is becoming brighter.

Conclusion

With the story about the Pennsylvania Railroad in Maryland, the Georges Creek and Cumberland Railroad, the Connellsville and State Line Railway with its feeders, and the short comments about the Cumberland and Pennsylvania Railroad, my effort in preserving some of the historical facts of the roads is concluded. These are all the Western Maryland roads that reach the balance of the main line through the Cumberland narrows—one of nature's avenues.

I have checked and rechecked in an effort to be sure of accuracy, but there must be errors and I would like to know about them.

It is my intention to turn next to the north Potomac Valley going west from Cumberland and try to place in the record many historical

facts about the West Virginia Central and Pittsburg and the roads associated.

I am indebted to those many people we all come in contact with, who by their interest in my project provided the encouragement to continue on in the search for Western Maryland Railway historical facts.

Mr. Charles Zarfoss, Vice President of the Western Maryland Railway, along with his assistant, Mr. Dewees, never failed to give me a lift and are most understanding of my objective. Superintendent Miller, Inspector of Transportation Smith and Master Mechanic Lyming were most willingly helpful.

Mr. Killough of the Western Maryland Railway is a kindred spirit; between us we brought to light many facts and confirmed many doubts.

Mr. Allen Millholland provided many photographs to examine.

The employees of the Enoch Pratt Library in Baltimore and the Public Library in New York were most helpful and patient.

To all that have helped—Thank you—and especially my patient wife, who has wished me good weather when I have said to her, "I think I'll go to Cumberland for a few days."

Hail and Farewell

Erie 2509 ex-, A. L. Co. 50000, 1910 - 1950

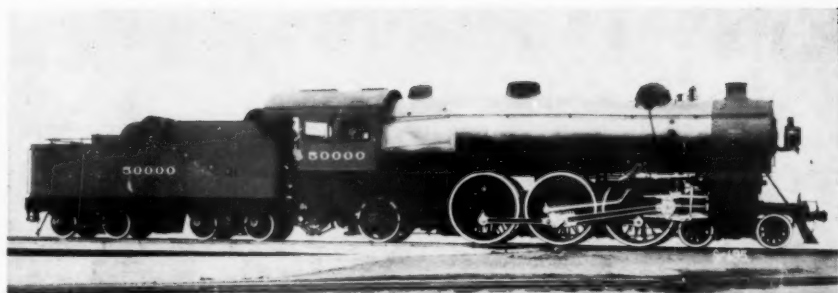
By DAVID S. WEATHERWAX

In July of 1910 there rolled out of the erecting shop of the American Locomotive Company at Schenectady, N. Y., a new locomotive, bearing on her tender, cab panels and builders plate, the number 50,000. She was the 50,000th locomotive built by that concern, an experimental passenger locomotive of the "Pacific" or 4-6-2 wheel arrangement, destined to leave her mark on future locomotive design. Our paths were to cross many times in the years to come.

I well remember thinking, the first time I saw her, that here is something special and something special she certainly was all her service life. I have always thought that, as she came from the builders, she was the most beautiful locomotive I have ever seen; a clean lined, clean limbed thorough-bred. The 50,000 was built solely at the expense of the American Locomotive Company incorporating certain ideas and theories of Mr. F. J. Cole, Mechanical Engineer and his associates who, for the first time, were completely untrammelled by any outside specifications or the necessity of conforming to any particular railroad's standards. Among the innovations in her construction were vanadium cast-steel cylinders (believed to have been used for the first time,) bushings, rods, and valve motion, also driving wheel centers, frames and springs of the same metal. Many of these innovations were to become standard practice. She was superheated, but her boiler pressure (185 lbs) was not high as measured by today's standards. She had 897 square feet of superheater surface and 59.75 square feet of grate area. Pages could be written about her unique mechanical details but I do not intend to go into technicalities here.

From July 1910, until sold to the Erie Railroad in September 1912, the 50,000 was put through a series of tests on various railroads including the New York Central where she handled practically all that system's high speed trains, among them the "20th Century Limited." The only criticism during these tests that I ever heard, was that some roads considered her too big for them. After a final period of tests on the Erie she was purchased by that company as of September 11, 1912, became their 2509, class K-3 and was assigned to trains No. 5 and No. 6 on the New York Division between Jersey City and Port Jervis. Here, her performance was so outstanding that her run was extended to include the Delaware Division, Port Jervis to Susquehanna.

Thereafter for many years she pulled the Erie's crack through trains, until she in her turn became too light and was superseded by the heavier 2900 class, but for which she sometimes pinch hit. As late as 1946 my friend, Harry V. Ladue, who at the time was engineer on No. 6 out of Port Jervis to Jersey City, told me No. 6's engine, a heavy 2900, arrived at Port Jervis from the west with a hot trailer truck. The Road Foreman of Engines was on the job and informed Harry



Courtesy of American Locomotive Co.
American Locomotive Co. #50,000

AMERICAN LOCOMOTIVE COMPANY, NEW YORK

Class 462 S 269

Road Number 50000

BUILT FOR THE A. L. CO. EXPERIMENTAL USE

GAUGE OF TRACK	CYLINDERS		DRIVING WHEEL DIAMETER	BOILER		FIRE BOX		TUBES		
	Diam.	Stroke		Diameter	Pressure	Length	Width	Number	Diameter	Length
4' 8 1/2"	27"	28"	75"	78 1/2"	185 lbs	114 1/4"	75 1/2"	207	2 1/4"	22' 0"
WHEEL BASE				WEIGHT IN WORKING ORDER - POUNDS						
Driving	Engines	Engines & Tender	Loading	Driving	Trailing	Engine	Tender			
14' 0"	35'-7"	68'-2 1/4"	49500	172500	47000	289000	181500			
FUEL	HEATING SURFACES, SQUARE FT.					GRATE AREA SQ. FT.	MAXIMUM TRACTIVE POWER	FACTOR OF ADHESION		
	Tubes	Fire Box	Water Tubes	Total	Superheater					
Soft Coal	3800	220	28	4048	897	59.75	40800 lbs.	4.25		

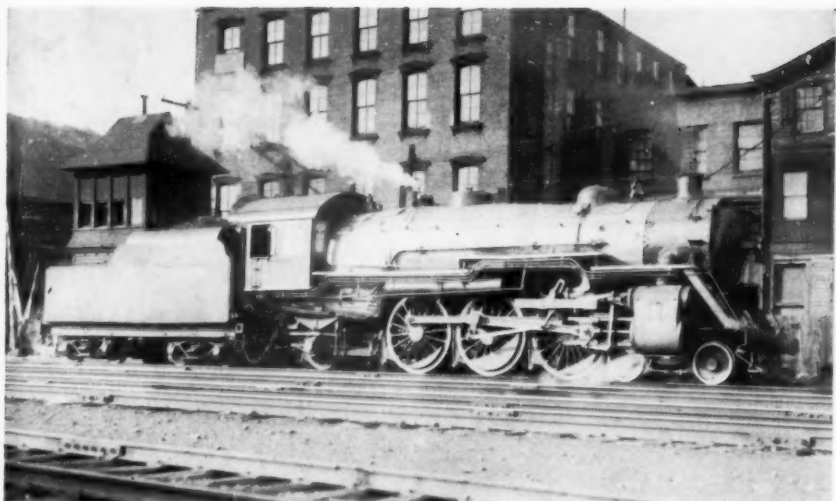
Tender, Type B-Wheeled

Capacity, Water, 8000 Gals.

Fuel, 14 Tons

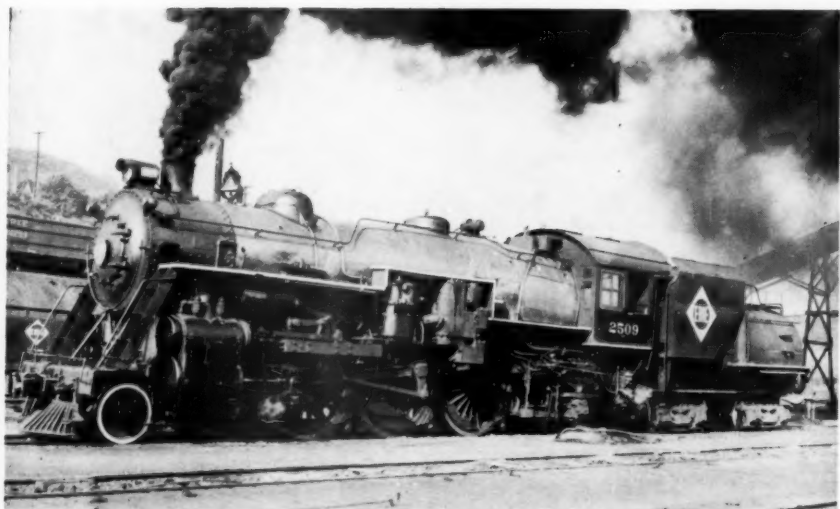
ORDER No. S-695

Courtesy of American Locomotive Co.
Specifications of A. L. Co. #50,000



Courtesy of G. M. Best

A. L. C. #50,000, Erie #2509 at Port Jervis, 1934 with original tender



Courtesy of G. M. Best

Erie #2509 as she appeared at Port Jervis in 1941

1111 1111 1111

there would probably be a considerable delay as there was no suitable engine available for relief. Harry had seen the 2509 on the ready track and suggested she be used. The 2509 was then well past her prime and the Road Foreman was dubious but finally consented with the understanding that, figuratively speaking, Harry's blood be on his own shirt. Harry tells me the 2509 not only made the time but he picked up 10 minutes with her in the 89 miles between Port Jervis and Jersey City. It is my considered opinion that no man, living or dead, ever knew how fast the 2509 was, for the simple reason no man ever held her wide open on level track long enough to find out. Her reputation for availability and her capacity to pick up lost time was a foregone conclusion and she was the answer to a Train Dispatcher's prayer. You could always reach up and ask for a little more and get it. She developed one horsepower for each 121.4 pounds of total weight and was 25% more efficient than the ordinary type "Pacific" locomotive. Among many Erie oldtimers she was affectionately known as "Big Liz."

After having been relieved of regular through passenger service she was assigned to light express and commuter trains on the New York Division frequently pulling the fast "Tuxedo." During World War II she was leased from September 1942 to October 1943 to the Atlantic Coast Line Railroad Company where she handled their crack train called the "South Wind" between Montgomery, Alabama and Jacksonville, Florida and, also, for a time was assigned to a local between Waycross, Georgia and Thomasville, Georgia. Upon her return to the Erie she was again assigned to the New York Division until 1946, when rumor had it she was about to be retired. Some opposition to this developed and she was shopped for classified repairs.

When she came from the shops she was assigned to trains No. 1 and No. 2 "The Erie Limited" over the Buffalo Division between Hornell and Buffalo and never came back to the New York Division. She remained in passenger service between Hornell and Buffalo until March 1949 and was retired in April 1949 since she was becoming expensive to maintain and required considerable boiler and frame work. It is interesting to note that she started her career in passenger service and was never demoted.

They have "OS'd" the 2509 for the last time. Her sharp clear exhaust and the pleasing chime of her whistle will never again reverberate through the Ramapo Hills. She has whistled in her last flag, but in the hearts and memories of many men she will always live. I am glad I wasn't around when they took her away, but I'll wager she went bravely, fearlessly and with her head held high like the aristocrat she was. I would have given a great deal to have had some small piece of her for a keepsake. It will always be among my proudest boasts that in my time I have latched out her throttle.

I believe her passing is worthy of recording. She was torn down for scrap in March 1950 at Warren, Ohio by the Luntz Iron and Steel Company.

Requiescat in pace, Erie 2509, ex-, A. L. C. 50,000, 1910-1950, aged 39 years and 9 months.

American-Built Locomotives In South Wales

By D. S. BARRIE

Although locomotives built in America for British railroads have been comparatively few in number, one only has to think of the early Norris engines built way back in the 'forties for working Lickey Incline on the old Birmingham & Gloucester Railway (now part of the London Midland and Scottish system) to appreciate that what they lacked in numbers they made up in variety and interest.

Until comparatively recent years, when standardisation brought about their disappearance, there were to be seen at work in the South Wales coalfields, seven representatives of U. S. constructed to the 4 ft. 8½ in. gauge. This region is one of the finest, if not the finest, steam coal-producing area in the world; the collieries lie mostly back from the sea in mountainous valleys, whose slant to the seaboard usually affords easy grades for the descending trains of loaded minerals. There is a vast network of these railroads, extending pretty well the whole way along the north side of the Bristol Channel from Newport, Monmouthshire to Llanelly in Carmarthenshire, and until the Railways Act of 1921 led to their being brought within the Great Western group, most of them operated independently. The two with which we are concerned in this note are the Barry Railway and the Port Talbot Railway, both modern roads as their initial sections were not opened until 1889 and 1897 respectively. Both roads operated passenger traffic, but their principal business was shipment of coal which they brought down from the inland pits.

The Port Talbot Railway was a striking exception to the general easiness of grading already mentioned as prevailing in this region. Going out of Port Talbot yards to reach the valley whence much of its traffic emanates, the single track climbs for nearly five miles at successive gradients of 1 in 50, 1 in 100, 1 in 65, 1 in 64, 1 in 40; the empty coal wagons have to be hauled up this hill and the loaded ones brought down. When the road began business there was nothing very suitable in the way of power to work this traffic without the extravagant use of helper engines, and accordingly in 1899 the famous engines 20 and 21 were ordered from the Cooke Locomotive Works of Paterson, N. J. (It was in the same year, and from the same firm, that the Barry Railway ordered *their* American-built locomotives, with which I will deal later).

The two Port Talbot engines, 20 and 21 were of the 0-8-2 wheel arrangement, and although eight-coupled drivers were still distinctly unusual in South Wales at that time (this region being the happy hunting-ground of the six-coupled tank engine, and having done more than any other area of Great Britain to develop the 0-6-2 (tank), they were not wholly a novelty. The Barry had put some eight-coupled tender engines into service in the middle eighties, and in 1896 the same road had seven 0-8-2 tanks built by the English firm of Sharp, Stewart, who specialised in the construction of power for this part of the

country. Undoubtedly it was the success of these Barry engines that led the Port Talbot to get the pair in question, Nos. 20 and 21.

These Port Talbot side tanks were very much like the conventional American switcher of the period. Features which particularly conveyed their nationality to the English railroad man were the bar frames, the stovepipe stack, and the unusual type of smokebox saddle. The eight coupled wheels were of 4 ft. 4 in. diameter, the drive being to the second pair, whilst in order to negotiate some of the sharp curves on this road the middle pair of drivers were left flangeless. The radial trailing wheels were 3 ft. 6 in. diameter. The two outside cylinders were 19 in x 24 in.

The boilers were of the extended wagon top type, of 4 ft. 8½ in. diameter (the same as the English rail gauge, incidentally), with 219 tubes, and 175 lbs. per sq. in. pressure (saturated steam). Total heating surface was 1,489 sq. ft. (1,361 ft. tubes and 128 ft. firebox, grate area being 24.5 sq. ft.) The total wheelbase was 22 ft. 1 in., and the coupled wheelbase 15 ft. 6 in. Water capacity was 2,000 gallons and coal capacity 2 tons, supplies being carried in the conventional English side-tanks and rear bunker respectively. The total weight in working order came to some 75 long tons, of which 61 tons were available for adhesion. The running numbers were carried on the stacks, in brass figures, as well as in the usual English manner on tank-side plates.

When these engines went into service they were put to the heaviest mineral work, their principal duty for many years being the working of coal trains between Dyffryn Yard (Port Talbot) and Maesteg, a run of 8½ miles including the bank up to Bryn Tunnel already mentioned. I have a service timebook of this road for 1907, in which Nos. 20 and 21 had a special mention as to the load they could take—25 empties and caboose up the hill, and 30 loaded coal wagons and caboose down the hill. Coming down the hill, trains stopped at the summit for a sufficient number of wagon brakes to be pinned down (the number varying with the load and state of weather) to enable the train to be kept under control on the hill; this is, of course, a standard English practice with this type of freight train on a heavy grade.

The same timebook contains the rather amusing note: *Up Main Line trains worked by Sharpe Stewart (sic) and Yankee engines may, when absolutely necessary, be banked as far as West End, but the trains must not exceed 55 wagons.*

The two Cooke engines were very successful, but there were not enough of them to cope with the great increase in coal traffic. Hence the Port Talbot Company, which had not enough money in 1899 to buy more than two big engines, looked round for more, and as by this time British makers were seeking orders instead of turning them away, Sharp Stewart's got the order which the road placed in 1901 for three more engines of similar wheel arrangement, and bearing many points of resemblance to the original "Yankees." (One of these Sharp Stewart engines is still in service, as Great Western Railway No. 1358, at the time of writing; it is the last 0-8-2 on that system).

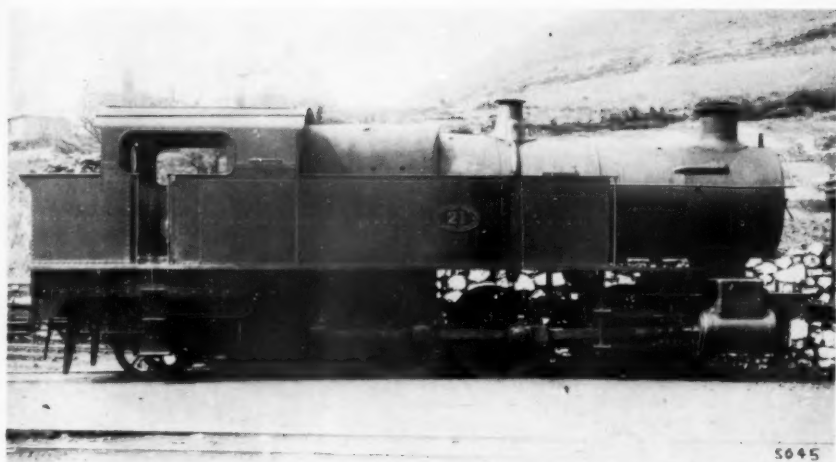
The Port Talbot Railway had very limited workshop facilities and probably could not do much more than ordinary maintenance and light repairs. The road had a close understanding, leading to working agreements and eventually to amalgamation, with the Great Western Company, which it contacted at several points, and from January 1st, 1908 its major overhauls of locomotives were carried out by the G.W.R. Hence when Nos. 20 and 21 wanted new boilers in 1910, it was to the G.W.R. works at Swindon that they went to get them, the original boilers being taken off and apparently scrapped, at Port Talbot.

The locomotives returned from Swindon with standard Great Western boilers, coned toward the front end, Great Western stack, and other fittings. Although no superheater was fitted, and although both the grate area and total weight of the engines were reduced, the result of the reboiling was to increase the heating surface and boiler pressure. The last-named figure was raised from 175 lbs. to 200 lbs., the tube heating surface (350 tubes instead of 219) from 1,361 sq. ft. to 1,692.14 sq. ft., and the firebox heating surface from 128 sq. ft. to 138.77 sq. ft., total heating surface being increased from 1,489 sq. ft. to 1,830.9 sq. ft. Weight in working order was reduced from 75 long tons to 72 tons 3 cwt. Wheels, wheelbase, cylinders, etc were unaffected but the water-tanks had 420 gallons lower capacity. As a result of the rebuild the tanks were extended somewhat, but the frames and motion (the latter always Stephenson link) were practically unchanged.

The engines continued very much in the same class of work until the Port Talbot finally became part of the Great Western system as from January 1st, 1922. In October, 1922 No. 20 received Great Western number 1378, and its compatriot 21 became G. W. 1379. (The manufacturers' works numbers were 2492-3). With the progress of standardisation, and the gradual elimination of non-standard engines whose low numerical strength rendered their maintenance uneconomic the "Yankees" neared the end of their useful life, and (original) No. 20 was broken up in 1928, and her sister the following year. So ends the history of the "Yankee" locomotives of the Port Talbot Railway.

The Barry Railway Engines

The Barry Railway, connecting several important coalfields with the port of Barry near Cardiff, was a much larger road than the Port Talbot. It employed a higher proportion of 0-6-2 tank locomotives, a type which, it will be remembered, originated with a rebuild on the Lancashire & Yorkshire Railway in 1879, and was introduced into South Wales by the Taff Vale and Rhondda & Swansea Bay Railways in the middle 'eighties. (The R.S.B. was so proud of its Kitson-built 0-6-2T that it included it in the official coat-of-arms.) The Barry introduced the 0-6-2 tank type in 1888 in anticipation of the opening of the road, so that this wheel arrangement was no stranger to the system when, in 1899 the road ordered five such engines (delivered in 1900) from the Cooke Locomotive Works of Paterson, N. J., and another five from the Société Franco-Belge. What was unusual about these locomotives was that they employed outside cylinders in conjunction with



Port Talbot Railway #21, as rebuilt



Barry Railway #119, as originally constructed by Cooke Locomotive Works, N. J.

the 0-6-2T wheel arrangement, there being (so far as I can recall) only one other case of this combination in South Wales. Maybe it was asking a little too much even of the Cooke Company to produce an engine so conventionally British and so un-American as a six-coupled inside-cylinder side tank job, but anyhow the engines were given outside cylinders. They were, of course, much smaller than the Cooke engines for the Port Talbot, but they boasted several interesting features. Chief of them was the combination of American-type bar frames for the front part of the locomotive, extending to the firebox, and English type plate frames (bolted to the bar frames) under the firebox, this being the only way in which a fair-sized firebox (grate area 21 sq. ft.) could be obtained. The outside cylinders (18 in. x 26 in.) had the valve steam-chest on top, Stephenson motion being employed, with Richardson's balanced slide valves, driven by rocking shafts. The coupled wheels were very small, 4 ft. 3 in. diameter, and the trailing wheels, 3 ft. 6 in. Total wheelbase was 20 ft. 8 in., the rigid wheelbase being 14 ft. 5 in.

As to some of the other dimensions, there is considerable discrepancy between the figures published when the engines first came from America, and those furnished to the Swindon authorities when the engines went to Swindon for repair after the G. W. R. had absorbed the Barry Railway as from January 1st, 1922. The Barry Company maintained modern workshops at Barry (which town the railway created), and it is possible that some or all of the Cooke engines had been given modified boilers, etc., between the time of building and their being taken into G. W. stock. I cannot from the records available throw any clear light on this question, but here are the dimensions :—

	<i>Published, 1900</i>	<i>Swindon Works Record</i>
Boiler Pressure	160 lb.	160 lb.
No. of Brass Tubes	181	181
Tubes Heating Surface	1,049 sq. ft.	964 sq. ft.
Firebox Heating Surface	98 sq. ft.	106 sq. ft.
Total Heating Surface	1,147 sq. ft.	1,070 sq. ft.
Bunker coal capacity	35 cwt.	45 cwt.
Water capacity	1,600 galls.	1,600 galls.
Total weight loaded	56 tons. 5 cwt.	58 tons 18 cwt.
Wt. available for adhesion	44 tons 13 cwt.	49 tons 17 cwt.

The weight of evidence and the dimensional trends suggest, however, interim rebuilding by the Barry Company and this is supported by a further discrepancy in the cylinder stroke—24 in. original record, 26 in. Swindon record. The running numbers, 117 to 121, were carried in brass figures on the stacks. So far as memory serves these engines were employed mostly on short trip freight work and on shunting at the docks sidings, of which duty there was a great deal.

As with the Port Talbot engines previously mentioned, the Great Western rebuilt two of the Cooke engines (G.W.R. Nos. 194 and 196) with standard coned boilers, abolishing at the same time the stacks and other fittings which had contrived to give them their American appearance.

The new coned boilers fitted to (G.W.R.) Engines 194 and 196 were considerably larger than those previously employed, and also included superheaters. The modified dimensions of these two engines were as follows:

Heating surface:

Tubes (218 in number) -----	1,069.42 sq. ft.
Firebox -----	121.80 sq. ft.
Superheater (36 tubes) -----	75.68 sq. ft.

Total-----1,266.9 sq. ft.

Grate area 20.35 sq. ft., pressure 160 lbs., water capacity, 1,530 gallons. Total weight in working order, 61 tons 18 cwt.

The registration history of these Barry engines was as follows:

Barry Rly. Number	Cooke Works No.	Renumbered as G.W.R. No.	Withdrawn and scrapped
117	2484	193	1929
118	2482	194	1930
119	2483	195	1927
120	2485	156	1932
121	2486	197	1928

These locomotives made up Class "K" of the Barry Railway.

This road had rather a leaning towards foreign-built locomotives, owing to the fact that its traffic expanded with enormous rapidity and it had to get power in a hurry at times when British manufacturers were heavily booked up with orders. Thus, the Barry stock included engines built in the United States, in Belgium, and by British manufacturers for the Swedish-Norwegian, Palatinate and Baden State Railways, but sold to the Barry instead. Two eight-coupled tender freight engines were also sold by one of the German roads to the Barry after having worked in Germany for several years.

Up to the enactment of the Railway Act of 1921, there were nearly a score of different railroads operating in the South Wales coalfields, and despite the prevalence of smallish six-coupled tank engines, their locomotive stock offered a great deal of interest and variety. To-day only the London Midland & Scottish and Great Western Railways operate in this field, the latter having by far the largest stake in the territory, but that chapter which concerns the American-built engines of the Barry and Port Talbot systems is not the least interesting in the story of a railroad country that goes back to the days of Trevithick and Brunel, and which played a vigorous if somewhat coal-begrimed part in the development of the Iron Road.

(Note: All the figures in the foregoing Note, such as "long tons, are in accordance with the English system of measurement and numeration. Grateful acknowledgment is made of the courteous assistance of Mr. C. B. Collett, Chief Mechanical Engineer of the G.W.R., and his staff, in kindly checking and amplifying certain of the details, and of Mr. A. R. Bell of the Locomotive Publishing Company, London, for permitting the photographs to be reproduced).

Ontario, Simcoe & Huron Railway

By ROBERT R. BROWN

A century ago, my great-grandfather Jonathan Dunn was an alderman in the city of Toronto and as such he was one of the invited guests at the official opening, on May 16th 1853, of the Ontario, Simcoe and Huron Railway—the first line of any consequence to operate in what is now the province of Ontario. The train moved off slowly over the new and uneven track to the first stop at a wayside station, probably Davenport, where it was discovered that four or five teen-age boys were riding on the pilot of the engine and thoroughly enjoying their forbidden adventure. Old Jonathon was surprised and somewhat annoyed to find his own son among them and family tradition relates that the special train was delayed a few minutes while suitable chastisement was administered. And the boys had a long walk home too. Just beyond Davenport, at Hog's Back, there was another mishap; the train ran into a cow and one coach was thrown off the track. No one was hurt but one old gentleman lost his gold-rimmed spectacles.

The idea of building a railway northward from the city of Toronto to Lake Simcoe and then to some point on the shore of Lake Huron originated back in 1834 and some surveys were made at that time but it was not until 1849 that definite action was taken. Frederick Chase Capreol, a successful auctioneer and amateur detective—he once caught a gang of murderers—became interested in the project and was the railway's most enthusiastic supporter. The bill incorporating the Toronto, Simcoe and Lake Huron Union Rail Road was approved by the Legislature of Canada in 1849, but as it contained some rather unusual features, Lord Elgin, the Governor-General, referred it to London for study. This was likely to mean considerable delay, so Capreol made a quick trip to England and obtained the Royal Assent on July 20th 1850. The questionable items were that no northern terminus was specified in the Act because the railway had no idea where it was going and the directors were authorized to sell stock in the ordinary way or they could raise money by means of a lottery.

On January 1st 1851, Capreol announced "An Extensive Canadian Railroad Union Tirage, founded on the principle of the Art Unions in England," an ingenious but very improper way of raising money for the construction of a railway. According to the prospectus, 100,000 raffle tickets would be sold at \$20.00 and in return for the \$2,000,000. cash received, shares to the value of \$2,000,000. would be divided as prizes among 15,954 winning ticket holders; the other 84,046 ticket holders would get nothing. The prizes were to be:

2 magnificent allotments of -----	\$100,000 in stock	\$200,000.
6 splendid allotments of -----	40,000 in stock	240,000.
10 extensive allotments of -----	20,000 in stock	200,000.
16 large allotments of -----	10,000 in stock	160,000.
20 allotments of -----	5,000 in stock	100,000.

50 allotments of -----	2,000 in stock	100,000.
100 allotments of -----	1,000 in stock	100,000.
250 allotments of -----	500 in stock	125,000.
500 allotments of -----	250 in stock	125,000.
2500 allotments of -----	100 in stock	250,000.
5000 allotments of -----	50 in stock	250,000.
7500 allotments of -----	20 in stock	150,000.

15,954

\$2,000,000.

Huckstering had not yet become a fine art and they ran short of adjectives; otherwise there would have been at least one super-colossal first prize.

Despite the alluring possibility of big returns, the results were negligible and in 1850 the charter was amended; dropping the lottery scheme and changing the name of the road to Ontario, Simcoe and Huron Railway—or the Oats, Straw and Hay as some would have it. A coolness had arisen between Capreol and the other directors and he disappeared from the management of the railway he had done so much to promote. He was called "Mad Capreol" but, like many others, he was a clever man born a hundred years too soon and not properly appreciated by his contemporaries. Many years later, the directors of the Canadian Northern Railway remembered him and gave his name to an important station in northern Ontario.

A contract was awarded to M. C. Story & Co. and construction started on October 15th 1851 when Lady Elgin turned the first sod. It was a typical celebration of that period, in the best British traditions; a monster parade, marshalled by Col. G. T. Denison, a noted Canadian soldier, marched from the City Hall to the old Parliament Building. First came a band, then the volunteer fire companies, temperance societies, fraternal societies, the societies of the Saints—Andrew, George and Patrick—business organizations, mechanics, school children, lawyers, judges, legislators, Mayor Bowes and the City Council, the railway commissioners, engineers, contractors, directors—and, last but not least, two policemen! Toronto the Good was a law-abiding little town in those days.

On Front Street, a little west of the present Union Station a grandstand had been erected to accommodate the crowd and, opposite a handsome pavillion awaited Lord and Lady Elgin whose arrival was announce by booming cannon. They were welcomed by Hon. H. J. Boulton, chairman of the board of directors, and by the band of the 71st Highland Light Infantry. Mayor Bowes, gorgeously arrayed in cocked hat, sword, knee breeches, silk stockings and shoes with silver buckles, read the address of welcome and in reply Lord Elgin jocularly remarked, "It may seem a singular application of the principle of division of labor that the lady should dig and the gentleman speak but this is an age of progress in which we must be prepared for what is strange." Then with a beautiful silver spade, Lady Elgin dug the first sod, deposited it in an ornamental wheelbarrow which Mr. Boulton wheeled away and dumped. It was all

very stuffy and mid-Victorian and the festivities ended with a sumptuous banquet in the evening.

Construction proceeded slowly; preliminary surveys were made by H. C. Seymour but he soon was succeeded by F. W. Cumberland who later became manager of the railway. Two young assistants were A. Brunel, who later was superintendent for many years, and Sandford Fleming, who in the future became Chief Engineer of the Intercolonial and Canadian Pacific Railways.

A small locomotive, the "Lady Elgin," was ordered from the Portland Company for construction work; it was brought across from Oswego by boat, set up on the track at the foot of Bathurst Street and on October 7th 1852 it steamed up and down the track—the first locomotive to run in Ontario. Others were ordered for delivery the following year; two from James Good of Toronto and three from the New Jersey (Brandt) Locomotive Works. No. 2, the "Toronto," built by Good was the first locomotive built in Canada and No. 3, the "Josephine" was a beautiful high speed passenger engine built by Brandt. No one knew just how fast she could go because no one dared to try to find out. It was one of the most famous engines of its day; almost as famous as Cyrus Hockett its driver, a popular hero about whom a song was made:

DANDY CY OF THE JOSEPHINE

I dressed myself from top to toe,
And out from Toronto I did go;
My hair all combed so slick and fine
I looked as prim as the Josephine.
My superintendent told me, oh!
I'se the best looking driver in the country, oh!
I looked in the glass and found it so,
Just as Brunel had told me, oh!

By February 1853, the line was completed from Toronto to Machell's Corner, now Aurora, and a limited train service was provided by the contractor.

The locomotive "Toronto" was built in the foundry and machine shop of James Good, on Queen Street, just west of Young Street. It was placed on temporary rails and conveyed along Queen and York Streets to the railway, a task requiring five days. It went for a trial spin on April 30th and was pronounced a great success.

The official opening of the railway was on May 16th 1853 and regular service started between Toronto and Machell's Corner. A month later, on June 13th, service was extended to Bradford and on October 11th to Allandale. In the following year, on May 2nd, a short branch was opened from Lefroy to Belle Ewart, at the south end of Lake Simcoe where connection was made with steamboats operating on Lake Simcoe and Lake Couchiching.

The goal of the railway was a port on Lake Huron and finally Collingwood was selected and the railway completed to that point on January 2nd 1855.

The station in Toronto was on Brock Street (now Spadina Ave.,) below Front Street and the freight sheds, round house, shops and yards occupied the block bounded by Brock, Front and Bathurst Streets and the lake. The railway owned several wharves with convenient spur tracks and also a grain elevator which however was burnt in 1870. The Office building was at the corner of Front and Brock Streets next to Loretta Abbey, a fashionable school for girls.

During the first few years of operation, the conductor on the passenger trains was John Harvie and railfans to-day owe him a debt of gratitude. Many years after he had left the service of the railway and become a prominent business man, he heard that the earliest locomotives were about to be broken up, so he arranged to have them photographed.

Although the railway was completed from Toronto to Georgian Bay, it was poorly built, overloaded with debt and ran through a still sparsely settled district, so the directors adopted a policy which they thought would create profitable through traffic but actually brought about the ruin of the company within four years. A steamboat was operated on Lake Simcoe and a line of five large boats ran between Collingwood and Chicago but the cost of operating them greatly exceeded the revenue and by 1859 the company was bankrupt. A re-organization followed in 1860, the name was changed to Northern Railway of Canada, and Frederick Cumberland was appointed manager. He immediately disposed of all the steamboats, discontinued all unprofitable through services and began to cultivate local traffic. He predicted a very large decrease in gross revenue but a proportionately greater decrease in expenses and the result would be a moderate profit instead of heavy losses each year as in the past. The country was beginning to open up. Cumberland's new accommodation trains were much more profitable than the former express trains and through freights, and a fair degree of prosperity followed.

For about twelve years the company was content to develop its 95 miles of main line and the short branch from Allandale to Barrie, built in 1859, but in 1872 it adopted a policy of expansion, through subsidiary companies, which in time raised the mileage to nearly 500. In 1872 the main line was extended from Collingwood to Meaford and a northern extension of the Barrie branch was started and reached Gravenhurst in 1875. In 1879 the Northern Railway amalgamated with the Hamilton and North Western Railway which, between 1875 and 1879, had built a line from Port Dover, on Lake Erie, through Hamilton to Collingwood and Barrie. A new name, the Northern and North Western Railway, followed the amalgamation and a connecting link from Toronto to Hamilton was projected but never built. In 1880 a branch was built from Colwell to Penetang and Hillsdale and in 1886 the Gravenhurst line was extended far to the north to a connection with the Canadian Pacific Railway at North Bay.

The line was built originally broad gauge, 5' 6", and was converted to standard gauge in 1881. The Hamilton and North Western Railway was always standard gauge.

During the middle eighties, the Grand Trunk Railway and the Canadian Pacific Railway began buying up all the small independent roads and on January 24th 1888 the Northern and North Western Railway was leased by the Grand Trunk Railway. It was bought in 1892 and as part of the Grand Trunk Railway it was acquired by the Canadian National railways in 1923.

NORTHERN AND NORTH WESTERN RAILWAY

ONTARIO, SIMCOE AND HURON RAILWAY

Toronto	Aurora	May 16 1853	29.7
Aurora	Bradford	Jun. 13 1853	11.5
Bradford	Allendale	Oct. 11 1853	21.5
Lefroy	Belle Ewart	May 2 1854	0.7
Allendale	Collingwood	Jan. 2 1855	31.4

NORTHERN RAILWAY OF CANADA

Allendale	Barrie	Jun. 10 1859	1.3
-----------	--------	--------------	-----

NORTH GREY RAILWAY

Collingwood	Meaford	Jun. 1872	21.1
-------------	---------	-----------	------

TORONTO, SIMCOE AND MUSKOKA JUNCTION RAILWAY

Barrie	Atherley	1872	24.2
Atherley	Washago	1873	10.3
Washago	Gravenhurst	Nov. 1875	12.9
Gravenhurst	Gravenhurst Wharf	1876	1.

HAMILTON AND LAKE ERIE RAILWAY

Hamilton	Port Dover	1875	42.7
----------	------------	------	------

HAMILTON AND NORTH WESTERN RAILWAY

Hamilton	Barrie	1877	92.4
Beaton	Collingwood	1879	41.5

NORTH SIMCOE RAILWAY

Colwell	Penetang	1880	33.4
---------	----------	------	------

FLOS TRAMWAY COMPANY

Elmvale	Hillsdale	1880	6.
---------	-----------	------	----

NORTHERN AND PACIFIC JUNCTION RAILWAY

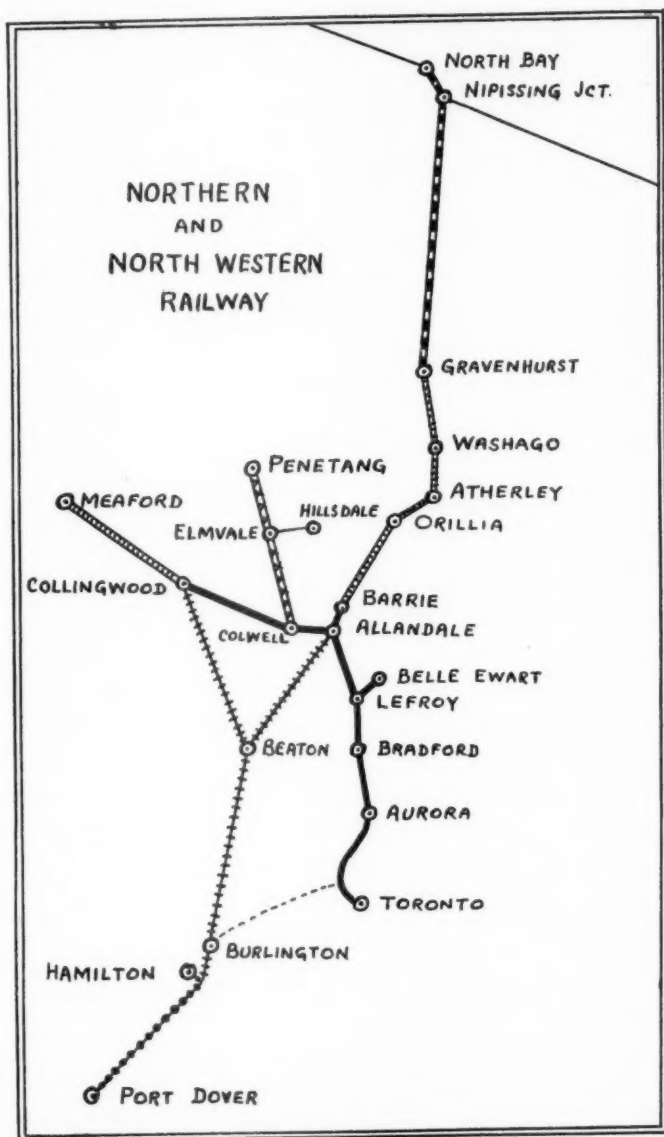
Gravenhurst	North Bay	Jan. 27 1886	115.8
			497.4

Locomotives

1852 broad gauge 5' 6"; 1881 changed to standard gauge; Grand Trunk Railway numbers in 600 series assigned in 1888.

1	Lady Elgin	4-4-0 14x20 60" 1852 Portland #33 Scrapped 1881
2	Toronto	4-4-0 16x22 54" 1853 James Good #1 Scrapped 1881
3	Josephine	4-4-0 17x20 72" 1853 New Jersey Scrapped 1881
4	Huron	4-4-0 17x20 60" 1853 New Jersey Scrapped 1870

4 641 St. Clair	0-4-0 13x20 54" 1853 Souther 1870 from Great Western Ry. #91 1881 converted to standard gauge.
5 Ontario	4-4-0 17x20 60" 1853 New Jersey Scrapped 1870
5 642 Simcoe	0-4-0 13x20 54" 1853 Souther 1870 from Great Western Ry. #93 1881 converted to standard gauge.
6 Simcoe	4-4-0 16x22 66" 1853 James Good #2 Scrapped about 1878.
6 643	0-4-2T 14x24 48" 1878 Baldwin 1881 to standard gauge
7 Collingwood	4-4-0 17x20 60" 1854 New Jersey Scrapped 1881
8 Seymour	4-4-0 17x20 60" 1854 New Jersey Scrapped 1881
9 Hercules	0-6-0 18x20 54" 1854 James Good #3 1857 rebuilt 4-6-0; scrapped 1881.
10 Sampson	0-6-0 18x20 54" James Good #5 1857 rebuilt 4-6-0; scrapped 1881.
11	4-4-0 16x20 60" 1855 James Good #10 Scrapped 1881.
12	4-4-0 17x20 66" 1855 James Good #11 Scrapped 1881.
13 George Beatty	0-6-0 18x20 54" 1855 James Good #12 1857 rebuilt 4-4-0 18x20 66"; scrapped 1881.
14	4-4-0 17x20 66" 1855 New Jersey Scrapped 1881.
15	4-4-0 17x20 60" 1855 New Jersey Scrapped 1881.
16 J. C. Morrison	4-4-0 17x20 66" 1855 James Good #13 Scrapped 1881
17 Cumberland	0-6-0 18x20 54" 1855 James Good #14 1857 rebuilt 4-4-0 18x20 66" Scrapped 1881.
18	?
19	4-4-0 16x24 60" 1867 Kingston #73 1871 changed to #24.
20 644	4-4-0 16x24 60" 1867 Kingston #74 1881 to standard gauge.
21 645	4-4-0 16x24 60" 1870 Northern Railway Probably old engine rebuilt. 1881 to standard gauge.



22 646	4-4-0 16x24 60" 1870 Northern Ry. Probably old engine rebuilt. 1881 to standard gauge.
23 647	4-4-0 16x24 60" 1870 Northern Railway Probably old engine rebuilt. 1881 to standard gauge.
24 648	4-4-0 16x24 60" 1867 Kingston #73 Ex. No. 19; 1881 to standard gauge.
28 649	4-4-0 16x22 60" 1872 Dubs & Co. 1875 from Intercolonial Railway; 1881 to standard gauge.
29 650	4-4-0 16x22 60" 1878 Kingston #197
30 651 Reindeer	4-4-0 16x22 68" 1869 Great Western Ry. 1872 from G.W.R. #44; 1881 to standard gauge.
31 652 Elk	4-4-0 16x22 68" 1869 Great Western Ry. 1872 from G.W.R. #45; 1881 to standard gauge.
32 653 Gazelle	4-4-0 16x22 68" 1869 Great Western Ry. 1872 from G.W.R. #46; 1881 to standard gauge.
33 654 Stag	4-4-0 16x22 68" 1869 Great Western Ry. 1872 from G.W.R. #47; 1881 to standard gauge.
34 655 Antelope	4-4-0 16x22 68" 1869 Great Western Ry. 1872 from G.W.R. #48; 1881 to standard gauge.
35 656 Windsor	4-4-0 14x22 66" 1853 Schenectady #59 1870 from Great Western Ry. #5; rebuilt 4-4-0 16x24 68"; 1881 to standard gauge.
36 657 Greyhound	4-4-0 16x22 68" 1869 Great Western Ry. 1872 from G.W.R. #49; 1881 to standard gauge.
37	4-4-0 Taunton ex Hamilton & North Western Ry. #13 origin unknown; scrapped 1881.
38 658 Port Dover	4-4-0 16x22 66" 1860 Rogers ex H&NW #12; origin unknown but originally bore name "Julia Collier."
39 Alliston	4-4-0 Penna. R. R., Altoona ex H&NW #14; scrapped about 1881.
40 Cookstown	4-4-0 Penna. R. R., Altoona ex H&NW #15; scrapped about 1881.
41 659 John Scott	2-6-0 17x24 54" 1874 Baldwin ex H&NW #1

42 660 J. M. Williams	2-6-0 17x24 54" 1874 Baldwin ex H&NW #2
43-4 661-2	2-6-0 17x24 54" 1874 Baldwin ex H&NW #3-4
45-51 663-669	4-4-0 16x24 60" 1878 Kingston #198,200-205 ex H&NW #5-11; named Halton, Peel, Norfolk, Simcoe, Hamilton, Barrie and Collingwood.
61-72 670-681	4-4-0 17x24 60" 1881 Brooks B. #551-3, 55-8, 560-1, 563-5.
73-74 682-683	4-4-0 18x24 60" 1888 Kingston #333-4
81-88 684-691	4-4-0 18x24 60" 1886 Kingston #310-317

Nos. 85 and 86 survived until about 1925, becoming Canadian National Railways Nos. 130 and 131.

Illustrations of the "Lady Elgin," "Toronto" and "Josephine" appeared in our Bulletin #25, published in 1931.

Narrow Gauge Locomotives in Western New York and Pennsylvania

By CHARLES F. H. ALLEN

At the time the history of the railroads of McKean County was written, very little information on the narrow gauge locomotives of these roads had been accumulated. Now, a considerable number of facts have been collected, thanks to C. E. Fisher, A. O. Geertz, D. H. Kirkwood, R. G. Nugent, and S. R. Wood, as well as by diligent search. It is, thus, possible to give a partial account of these engines, and to hope that our members will supply missing details. It must be remembered that most railroad men who were active in the days these roads were operated are now deceased, and the very few contacted have sometimes been a bit uncertain as to details. For instance, Mr. Nugent found two men in western New York who were certain that several of the engines were finally disposed of to the Denver & Rio Grande, but not one of them appears in the recently published roster of engines of that road. Whenever possible, doubtful statements have been verified from other sources.

The narrow gauge locomotives were sold back and forth (or even loaned), making it difficult to follow their wanderings, especially in cases where the records have been lost. This is particularly baffling in the case of the Pennsylvania RR. roads. Most of the engines were undoubtedly relettered when the Buffalo, New York and Philadelphia took over their control in 1882. The succeeding Western New York and Pennsylvania certainly acquired the same engines but the record of their past has never been located.

Several southern second-hand dealers (e.g., Southern Iron & Equipment Co.; Georgia Car & Locomotive Co.; Birmingham Rail & Locomotive Co.) bought serviceable rolling stock no longer wanted by northern roads. The SI&E handled Baldwin No. 10601, and almost the entire WNY&P standard gauge roster between 1905 and 1910, according to Member G. M. Best. They may well have disposed of some of the others.

Certain discrepancies in the time element have never been cleared up. For instance, the Bradford, Eldred & Cuba was abandoned and salvaged in 1893 (Bull. No. 78, p. 68), yet some of their locomotives were not "bought by other roads" until 1897; where were they during the intervening years? In all reports the BE&C owned six engines; two of these they leased to some other road (BB&K?) in 1890, and in 1892 it was reported they owned but four. Mr. Nugent believes that one went to the Addison and Pennsylvania, but no record of this sale has been located. Another was sold to the BB&K (see table).

TONAWANDA VALLEY

No.	Builder	Constr. No.	Kind	Date	Cyl.	Drivers	Notes
1	Brooks	436	4-4-0	7-1880	12x16	42	A, B

TONAWANDA VALLEY AND CUBA

2	?						B
3	Brooks	636	4-4-0	1-1882	12x18	43	C
4	Pittsburgh	587	2-6-0	7-1882	12x18	36-½	D
5	Pittsburgh	588	2-6-0	7-1882	12x18	36½	E
8	?		4-4-0				F

BRADFORD, ELDRED & CUBA

1	Brooks	568	4-4-0	8-1881	12x18	43	G
2	?		4-4-0				H
3	Brooks	618	2-6-0	12-1881	12x18	37	
4	Brooks	619	2-6-0	12-1881	12x18	37	
5	Brooks	655	4-4-0	2-1882	12x18	43	
6	Baldwin	3193	2-6-0	3-1873	12x16	36	H, J

A—Sold to Attica and Freedom in 1893 and subsequently to J. L. Roper & Co.

B—Loaned to Addison & Co. Pennsylvania for construction; probably sold to Attica & Freedom.

C—Sold to BB&K 3-1891. Ren. 12.

D—Sold to BB&K about 1893. Ren. 8.

E—Sold to BB&K about 1893. Ren. 9.

F—See picture in Bull. No. 76. p. 56.

G—Sold to BB&K 9-1897. Ren. (2nd) 7.

H—One was sold to Addison & Pennsylvania.

J—Ex-Cairo & St. Louis No. 18, "W. Bradley"; bought about 1886.

BRADFORD, BORDELL AND KINZUA

No.	Builder	Constr. No.	Kind	Date	Cyl.	Drivers	Note
1	Brooks	280	2-6-0	7-1876	11x16	36	A
2nd 1	Baldwin?		2-4-4T				B
2			2-6-0				C
3	Brooks	420	4-4-0	6-1880	12x16	42	C
4	Brooks	442	2-6-0	8-1880	12x18	36	C
5	Brooks	455	2-6-0	9-1880	12x18	36	C
6	Brooks	482	4-4-0	12-1880	12x16	42	C
1st 7	Brooks	629	4-4-0	12-1881	12x18	43	C, D
2nd 7	Brooks	568	4-4-0	8-1881	12x18	43	E, F
8	Pittsburgh	587	2-6-0	7-1882	12x18	36-½	G
9	Pittsburgh	588	2-6-0	7-1882	12x18	36-½	H
10	Baldwin	5643	2-6-0	5-1881	14x20	45	I
11	Brooks		2-4-0	1883?			C, J, K, R
12	Brooks	636	4-4-0	1-1882	12x18	43	C, K, L, R
13	Brooks		4-6-0				C, K, O, R
14	Baldwin	10601	4-6-0	1-1890	15x20	44	C, K, M, Q
15	Baldwin	10604	4-6-0	1-1890	15x20	44	C, K, N, P

A—Built for Emlenton, Shippensburg and Clarion. This road became a part of the Pittsburgh, Bradford and Buffalo in 1881.

B—Sold to Goodyear Lumber Co. about 1908, and used at Cross Fork Jct.

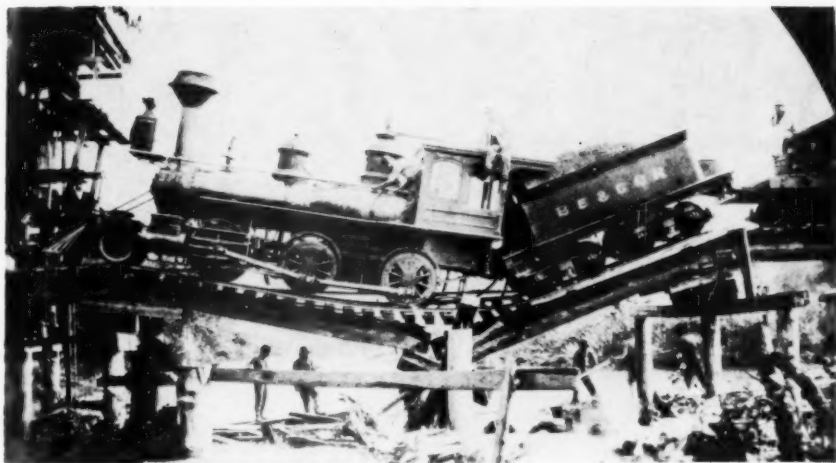
C—Sold to a western road about 1908.

D—Ex-Kinzua No. 16; bought, 3-1897.

E—Ex-BE&C No. 1, bought, 9-1897.

F—Sold to Big Level and Kinzua and retained same number.

G—Ex-TV&C No. 4. Sold to Summerville Valley, a lumber road connecting with the West Branch of the Erie (Bradford to Nusbaum, Pa.) Abandoned with 2 or 3 cars in woods.



Courtesy R. G. Nugent

On trestle over Genesee River, Wellsville, N. Y.



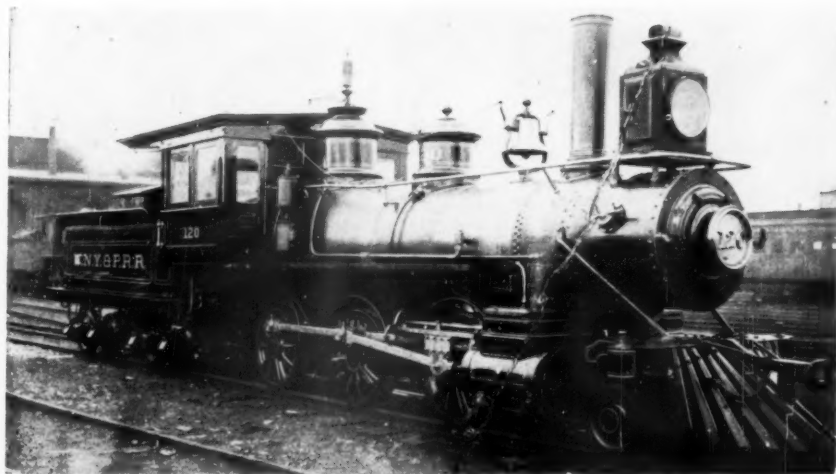
Courtesy R. G. Nugent

B. E. & C.; the "Narrow gauge" at Allentown, N. Y.



Courtesy of Donald A. Somerville

B. N. Y. & P. R. R. #106, Brooks



W. N. Y. & P. R. R. #120, Brooks #327, 5-1878 12x18" 36". Ex Kendall & Eldred #1

Mt.
carl



Courtesy Roscoe Davis

Mt. J. K. & R. R. Engine #1 "Dan Fenton," "The Little Dan" Fitted with drawhead for std. and 3 ft. gauge cars.



Courtesy Roscoe Davis

Mt. J K & R #2 "Edward Bellamy," April, 1892

INDEX

Q
E

161

1
1
1
1
1
1
1
1
1
1
1

8
9
10
11
12
13
14

- H—Ex-TV&C No. 5 Sold to D&RG, but boiler blew up before delivery, so scrapped.
 - I—Ex-D&RG No. 150, "Silverton." It was subsequently sold to the BL&K, B&O, and West Virginia Midland, in this order.
 - J—Run by Engineer Riley, of Springville, N. Y.
 - K—Mr. Watson thinks they were all sold to the same western road as they all left about the same time.
 - L—Ex-TV&C No. 3.
 - M—Ex-Pittsburgh & Western No. 20, ex-B&O No. 95.
 - N—Ex-Pittsburgh & Western No. 22, ex-B&O No. 97.
 - O—Perhaps this was the WNY&P No. 207, which was sold to the BB&K in 1899.
 - P—Mr. Watson related this interesting anecdote to Mr. Nugent. The BB&K passenger train tied up in Bradford overnight. It was usually pulled by No. 15, which had a very beautiful, melodious whistle. An engineer of another road tried unsuccessfully to steal this whistle; when he took it off, the steam blew out with such a noise it scared him, and he dropped the whistle as he ran.
 - Q—This engine was last heard of on the Escambia Ry. (Fla.) as their No. 6, according to Mr. G. M. Best.
 - R—Mr. Watson states that No. 11 was a 2-4-0; No. 12, a 4-4-0; No. 13, a 4-6-0; and that No. 11 was sold to the Colorado & Southern—"last time I saw it it was switching in Grand Junction Yard. The 12 was sold to a sawmill company in Bradford and up to a few years ago it was still working. The 12 was fired with wood. The 13 was a passenger engine, highest engine on the BB&K but not the heaviest."
- "The two engines of the Springville & Sardinia were also sold to Colorado roads. I saw them on a way freight in Salida."

In many respects the complete story of the narrow gauge engines of the roads that subsequently came into the Pennsylvania RR system is even less satisfactory than those of the Erie group. The earlier records, however, are much more complete. All but one came from the Brooks works, and all appeared to be new on these roads. Although there was a total of 17 engines during the life of these roads, it does not seem that all were present at the same time.

Seven were listed on the Olean, Bradford and Warren roster, five on the Kendall and Eldred, three on the Bradford and two on the Kinzua. Engines must have been loaned, leased, or traded back and forth where needed, because in the 1881-2 Poor's it is stated that the Kendall and Eldred had six locomotives, whereas the roster shows a maximum of five. Although according to the records the Olean, Bradford & Warren's seven engines were all built in 1877-9. Poor's lists a total of only three at any time or in 1882. Furthermore, the OB&W acquired four from the Kendall & Eldred, and renumbered them into their system, presumably after the K&E had been abandoned in 1893. It seems very curious that both the Bradford and the Kendall and Eldred had a No. 13, but there was never a No. 12 on any of the roads.

Since most of these engines came down to the Western New York and Pennsylvania, it is most unlikely that they were sold to independent roads and repurchased. Although the four narrow gauge roads were sold to the Buffalo, New York & Philadelphia in 1882, and were listed separately in Poor's for many years, the engines were lumped together (a total of 15) under BNY&P rolling stock; thus, two were already "lost." They were renumbered (note pictures of Nos. 105, and 120), but no record has survived. They were renumbered again when

they came to the WNY&P, which assigned Nos. 201-209 to the nine surviving in 1889. Their history has not been preserved, nor do we know the builder's numbers; since No. 202 was built in 1878, it must have been one of K&E 1, 2, 3 or OB&W 3, 4, 5.

Four of the original engines (Nos. 6, 14, 16, K&E 13) were sold as shown in the rosters, and it seems highly probable that two others (Bradford Nos. 13 and 15) went to the same road as No. 14. At any rate, two are entirely unaccounted for by 1886, and two more by 1888. According to Mr. Geertz, the remaining nine were disposed of as shown in the table; however, No. 209 couldn't be one of these older engines inherited from the predecessor roads mentioned, because it was a 2-4-0—hence there is still another unaccounted for. Mr. Kirkwood states that No. 207 was sold to the Bradford, Bordell & Kinzua in 1899.

Engine No. 209 is a mystery; there is no 2-4-0 in any of the rosters, but it is clearly recalled by Mr. F. F. Watson, now of Springville, N. Y. He states that the WNY&P had only one engine, No. 209, in Bradford; with one coach it made a round trip a day to East Bradford. The engineer was Jack McKnight. "Engine No. 209 was a 2-4-0 about the size of a big teakettle. I used to ride to work on it every night one year, and took the place of the conductor, who would stay in Bradford when he knew I was going. The track ended right in the middle of the road in E. Bradford; it followed Tuna Creek most of the way and (the train) tied up right next to Main St. in Bradford. It was about 2 miles long. It was owned by the PRR. The train was operated as long as the bridge over Tuna Creek was safe for the engine and coach; later they used a horse and flat car, and still later only a handcar. This was done to hold the franchise. They had a war with the BR&P over the crossing just back of the present B&O freight house and (the BR&P) bucked the narrow gauge off the frog, but that didn't stop the WNY&P from running. They called out the fire department and turned the hose on the BR&P men and locked some of them in the coop over night. The next day the WNY&P was back on the rails and running . . . After awhile the BR & P bought this part of the WNY&P and tore out the frog; the track along Tuna Creek was not torn up until before the first World War. The PRR operated over the BR&P into Bradford from Riverside Jet. as they still do."

Mr. Watson began his railroad career on the BB&K just before its purchase by the BR&P. For nine months he fired, under engineers Banta, Clarke, Coulter, Dailey, Lynch, Miller and Riley. Dan Dailey was the last superintendent of the BB&K, and Phil Evans the master mechanic. At the time of the sale all BB&K men who so desired were transferred to the Gulf & Ship Island (see Bull. No. 76, p. 61) which was owned by the same interests; Riley went along, but didn't stay; he was involved in a boiler explosion, losing an eye.

Mr. Watson next worked as a telegraph operator in the BB&K office at Bradford, at the point where the small road crossed the BR&P. He is now with the B&O at Springville.

OLEAN, BRADFORD AND WARREN

No.	Builder	Const. No.	Kind	Date	Cyl.	Drivers	Notes
1	Brooks	312	4-4-0	12-1877	12x16	42	
2	Brooks	313	2-6-0	12-1877	12x16	36	
3	Brooks	321	2-6-0	2-1878	12x16	36	
4	Baldwin	4273	4-4-0	2-1878	12x16	40	A
5	Brooks	326	2-6-0	4-1878	12x18	36	
6	Brooks	325	4-4-0	4-1878	12x16	42	B
7	Brooks	349	2-6-0	1-1879	12x18	36	
8	Brooks	327	2-6-0	5-1878	12x18	36	C, H
9	Brooks	328	2-6-0	6-1878	12x18	36	C
10	Brooks	329	2-6-0	6-1878	12x18	36	C
11	Brooks	350	2-6-0	3-1879	12x18	36	C

A—Named C. D. Whitney

B—Sold to Liberty Iron Co., 5-1891

C—Ex-Kendall and Eldred

H—Became BNY&P No. 120, WNY&P No. 120

KENDALL AND ELDRED

No.	Builder	Constr. No.	Kind	Date	Cyl.	Drivers	Notes
1	Brooks	327	2-6-0	5-1878	12x18	36	D
2	Brooks	328	2-6-0	6-1878	12x18	36	D
3	Brooks	329	2-6-0	6-1878	12x18	36	D
4	Brooks	350	2-6-0	3-1879	12x18	36	D
13	Brooks	486	4-4-0	12-1880	12x18	42	E

D—Sold to Olean, Bradford and Warren

E—Sold (1) to Diamond Valley RR., 4-1890; (2) to Newport and Shermans Valley RR., 8-1892

BRADFORD RR

No.	Builder	Constr. No.	Kind	Date	Cyl.	Drivers	Notes
13	Brooks	645	4-4-0	1-1882	12x18	43	
14	Brooks	665	4-4-0	2-1882	12x18	43	F
15	Brooks	628	4-4-0	12-1881	12x18	43	

F—Sold to Toledo and South Haven, July 1894; ren. No. 1. This road extended 36.6 miles from Lawton to South Haven, Michigan. It was sold under foreclosure May 23, 1894 and reorganized as the South Haven and Eastern. It had 3 locomotives in 1897, very possibly Nos. 13-15.

KINZUA RR

16	Brooks	629	4-4-0	12-1881	12x18	43	G
17	Brooks	666	4-4-0	2-1882	12x18	43	

G—Sold to the Bradford, Bordell & Kinzua, Mar., 1897; their first No. 7.

DISPOSAL OF 3-FOOT LOCOMOTIVES

Year	Remarks	WN&P No.
1884-6	BNY&P has 15	
1888	WNY&P has 13	
1889	WNY&P has 9	Owned 201-209
1890	K&E No. 13 sold; 9	
1891	OB&E No. 6 sold; 9	
1894	B No. 14 sold; 8	206 sold
1896	K No. 16 sold; 8	
1897	5	205, 209 cut up; 208 sold
1898	4	201 sold
1899	3	207 sold to BB&K
1900	1	203, 204 sold
1901	0	202 "dropped"

Information on the seven Allegany Central locomotives is neither complete nor satisfactory. A roster of Shawmut motive power (Bulletin No. 61, p. 86), compiled by a Mr. McCullough, superintendent of motive power, listed seven narrow gauge engines. Since all old records were stated to have been destroyed in a fire, it is not known what data he used. The reports of the inspectors of the State of New York record only two narrow gauge engines on the Shawmut in 1899-1901. Other errors have also been found. In Bulletin No. 61 it was noted that former conductor Jack McLaughlin had stated that all were new. Charlie Lyons, of Angelica, a former Lackawanna and Pittsburgh employee who is still living (age 86, 1951) stated very positively that the only new one was the "A. W. Miner," Friendship No. 1. Mr. Lyons started his railroad life as a switchman on the L&P with other duties, which included considerable hostling. From this road he went to the Bradford, Bordell and Kinzua; Buffalo, Rochester & Pittsburgh, and to the Lackawanna; in 1887 he went to Texas to see a relative, and worked on the Burlington, Union Pacific, Denver & Rio Grande, Southern Pacific, Texas & Pacific, and Santa Fe. He returned east at the time of the Spanish War. His post-war job was with the newly-formed Pittsburg, Shawmut and Northern, at first painting boxcars, bought second-hand from the Quaker Oats Company. He next moved into the shops, as fireman, hostler, and ultimately into the boiler shop. Mr. Lyons remembers engines No. 2, 4, 7, 8 and 9 on the BB&K. He also recollects that one of the engines was in a fire, the cab was burned off, and that the engineer used to run it, sitting on a box.

These engines will now be considered individually. The first three are well scrambled. Mr. Lyons feels sure that the "A. W. Miner" was L&P No. 1, hence A. C. No. 1; furthermore, he recalled that there was also a tank engine, which would correspond to Mr. McCullough's Mason, A. C. No. 2. Mr. Lyons did not remember any Olean No. 1, but it might have been the A. C. No. 3, which he said was an old engine, and a "Jonah," always in some sort of operating trouble. The picture of an A. C. R. R. "S. C. Dorsey," No. 3 shown on page 78 of Bulletin No. 61 appears to be an error; the name, Dorsey, has never turned up in any Allegany Central connection. Mr. Fisher found that there was a narrow gauge Arkansas Central, with an official, S. W. Dorsey, which leads one to believe that the picture is really that of Arkansas Central No. 3.

Mr. Lyons was sure that No. 4 was a Brooks, but from the picture (Bulletin No. 61, p. 78) it appears to be a Baldwin. Since it is not in the records of the latter company, it must have been obtained second-hand. Mr. Wood searched carefully, finding only one engine of the approximate date: 4-4-0, Constr. No. 5439; built, 1-1881, as Chester & Lenoir No. 4, "Holmes Hardin"; 11x16; 52". (The C&L became a part of the Carlina and Northwestern.) This engine later went to the J. W. Truitt Company; it possibly drifted to the Allegany Central retaining the same number. An alternative possibility is that it was Olean, Bradford, and Warren, No. 4, for the same reasons as given below under No. 7.

Engine No. 4 remained in service on the succeeding roads (Lackawanna and Pittsburgh, Lackawanna and Southwestern; Central New York and Western; Pittsburg, Shawmut and Northern), being mentioned several times in contemporary papers; furthermore, Nugent, Sr., recollects seeing it in 1900-1901, when he was employed by the Shawmut.

These four engines, Nos. 1-4 are presumably the four on hand on February 17, 1882, as noted in a contemporary paper; numbers 1-3 had disappeared by 1886.

The two Baldwin moguls, No. 5 and 6, have been more fully traced. They were ordered as Mexican National Construction Company Nos. 42 and 40, but were shipped instead to the Allegany Central, thus, arriving as new engines. They remained on the succeeding roads, No. 5 even on the Shawmut; No. 6, however was lost sight of after the Lackawanna and Southwestern, probably being scrapped under the Central New York and Western. Mr. Lyons said that the front end of No. 6 was converted into a stove for one of the Angelica shops. He said also that No. 5 was the last one to be used in service; it turned up later at the DeSoto Foundry Machine Co. (S. R. Wood).

The origin of No. 7 is obscure—its existence was considered problematical until it was found mentioned by number in the contemporary newspaper. Mr. Lyons subsequently said that it was an old Brooks, and a Mogul. The author suggests the very likely possibility that it was formerly Olean, Bradford, and Warren No. 7 for several reasons: (1) the make and wheel arrangement agree. (2) The OB&W "bought" four engines from the Kendall & Eldred, which they wouldn't have needed unless they had disposed of some of their older engines (see OB&W roster). The heyday of the K&E was over by 1882. (3) The New York firm of Post, Martin & Co. controlled both railroads, so could transfer an engine from the OB&W to the AC just as easily as they moved the K&E engines. (4) Engine numbers were retained on transfer in many instances—certainly throughout the predecessors of the Shawmut. (5) After noting these four points Mr. Lyons was queried. He stated that the Allegany Central had leased OB&W No. 7 for use in constructing the road, but he didn't *know* whether or not it had been returned, nor anything about the origin of AC No. 7.

Mr. Nugent, Sr., says he can remember the old narrow gauge trains of the Central New York and Western; Jack McLaughlin was the conductor on passenger trains on this road. Ed Corwin was also a conductor, and John Possell an engineer. There used to be a quicksand hole on a sharp curve near the (West) Notch; it caused the track to tilt unless worked on almost daily. Very frequently the little narrow gauge engine would jump the track there because of the soft fill. Everyone would then get out, help put the engine back on the track again, after which all would continue on their way.

ALLEGANY CENTRAL*

No.	Builder	Constr. No.	Kind	Date	Cycl.	Drivers	Notes
1			4-4-0				A
2	Mason	652	2-4-4T	6-1881	10x16	42	
3?	Baldwin	3125	2-6-0	2-1873	11x16	36	B
4	Baldwin, or	5439?	4-4-0	1861	12x18	42	C, D
4	Baldwin	4273?	4-4-0	2-1878	12x16	40	C, D, E
5	Baldwin	5975	2-6-0	12-1881	14x20	45	D, F
6	Baldwin	5979	2-6-0	12-1881	14x20	37	G
7	Brooks	349?	2-6-0	1-1879	12x18	36	G, H

* The scrapping dates given in Bulletin No. 61 are mostly incorrect.

A. ex-Friendship No. 1, "A. W. Miner."

B. ex-Cairo & St. Louis No. 9, "Monroe"; ex-Olean No. 1?

C. Photo in Bulletin No. 61, p. 78; scrapped about 1901.

D. Retained same number on L&SW, CNY&W, PS&N.

E. ex-OB&W No. 4

F. Sold to DeSoto Foundry Machine Company after 1901.

G. Retained same number on L&P, L&SW; scrapped by latter?

H. ex-Olean, Bradford, and Warren, No. 7?

Roscoe Davis writes: "In one picture MtJK&R No. 1, 'The Little Dan' (named for Daniel Fenton, who was probably a bigwig in the Prohibition Party) appears with the Kinzua and Hemlock coach. The Little Dan was constructed by the Climax Iron Works, Corry, Penna. and it took part in numerous amusing and pathetic events as well as being ever present in the serious business of the lumber industry. Notice the drawhead for both standard and narrow gauge cars. In order to engage the front end with a narrow gauge car the engine would have to be turned around so as to bring the proper section of the drawhead over the center of the narrow track. I was acquainted with Dave Kinner, fireman, who stands in the cab door. I also knew the short man, Forbes, who stands near the front of the coach.

"The flags were found in time to be useful only as decorations, as there were no operators, telegraph system, nor even telephones at the start. At one time, when the mill was running night and day there were eight engines and crews, and they ran on verbal orders. In the morning and evening they would learn what was expected of each to be done, and where all were going and at what time, so that they could give each crew its proper right-of-way. I don't recall any collisions that amounted to anything. The speed was not great but you could not see far around the hilly curves.

"The church was begun in 1891 and completed in 1893. In these pictures the trees look as if they were starting to leaf, so I think the views were taken in April 1892.

"It was the duty of these two engines to haul the log trains and the mixed passenger and freight trains. The more dignified duty of delivering the finished products of the mill, the clothes pin factory and the chemical works, the planing mill and the shingle factories down the line, was delegated to the No. 3, 'John P. St. John,' a Baldwin eight wheeler, which chugged to Mt. Jewett all day long with as many as five loads at a time. At this time or later there were mills at Pembroke, Camp Halsey and Westline.

"The second picture shows No. 2, the 'Edward Bellamy,' with the log train. It was pulled onto the curve that crossed the valley so as to catch the cars. There would be twelve log-cars in the train and they were loaded by hand. Notice the men with the peavies, also called 'cant-hooks.' In 1897 (?), for the Mead Run operation, a steam loader was secured. The logs were picked up by this loader and swung onto the cars. The E. B. was heavier than the Little Dan, but the speed record were held by the latter.

"Tom McClellan, a working partner of Kane's for a couple of years, stands in gray suit just behind the cab. The engineer was Harvey Tyler, and standing on the engine step is Mr. Blair, woods scaler. After the picture was taken the train was backed up and taken up the track to the right to be unloaded into the millpond. The two bags on the engine look like mailbags stuffed with empties from the Westline postoffice.

"The oil well was somewhat of a failure, but there are producing wells just across the valley."

The Hudson River Bridge

By M. B. WAKEFIELD

Early in April of the year 1864 work was commenced on the bridge that was to become the engineering triumph of its time. It was begun after years of vexatious delays caused by litigation with parties representing interests further up the Hudson River. It took nearly two years to construct and was constructed of wood, a factor which aroused the bitter criticism of the citizens of Albany. The railroad countered this by informing them that it was expected to be torn down in three years time.

The bridge proper (not including the approaches) consisted of 2 abutments and 19 piers which supported a track bed of 2020 feet, while the overall length was nearly a mile. The main channel of the river was crossed by four spans of 178 feet between the centers of the piers. This superstructure was of the popular Howe truss type; heavy timber construction, with iron rods and bracing. The two central draw spans were each 131 $\frac{3}{4}$ feet in length. The remaining 14 spans over the shallow water on the east side, as well as those over the basin on the Albany side, were short spans ranging from 72 feet to 78 feet, each built on the same general plan. In addition to trestling at the approaches, there were eighteen fixed spans (four of 172 feet, and the remaining fourteen 72 feet long) in addition to the center or draw span of the bridge. The bed of the river was excavated in some places to a depth of 10 or 12 feet and within this space piles were driven to the hard bottom, sometimes as deep as 33 feet. A heavy timber crib was then built around the proposed pier, resting on the bottom within three feet of the low water mark. The crib was then filled with concrete and floored with heavy timber, upon which the first stones of masonry were laid. The piers were of cut limestone masonry, the great stones were cut at the quarries of Luke Noone at Kingston and James Shannahan at Tribes Hill. The piers rose 30 feet in height above the low water and had a width at the bottom of 9 feet, while at the top under the coping (which projected 9" on all sides) it measured 6 $\frac{1}{2}$ feet. The face stones were all cramped together by iron cramps while, in addition, the two faces of the pier were tied together by iron bars at intervals on each course along the front, extending through the piers from side to side. To further insure the strength of the masonry the head stones were all dowed together with iron dowels, each stone to the stones above and below.

The bridge was constructed by the Albany Bridge Company, constituted mainly of directors in the different roads centering at Albany, and was owned one half by the New York Central and one quarter each by the Hudson River Railroad and the Boston & Albany respectively. George E. Gray, who was chief engineer of the Central in 1864, designed the bridge and superintended construction of its earliest piers. A number of these were completed in April 1865 when he retired as chief engineer and was succeeded by Colonel Julius W. Adams. The bridge was located about a half-mile north of the present south bridge, used today by most of the passenger trains on the New York Central.

On February 15, 1866 a bearded old hogger mounted the cab of the Hudson River R. R. locomotive "Augustus Shell," received the highball and then proceeded to bestow upon this ancient teakettle the distinction of becoming the first locomotive to cross the structure.

Shortly thereafter, on February 22, the first train operated across the trestle amid much celebration. To best describe this gala occasion I will quote from the late Ed Hungerford's fine book "Men and Iron":

"The opening of Albany Bridge was a great event. It was at 3:15 o'clock in the afternoon of Washington's Birthday, 1866, that a party of invited citizens began gathering at the Delevan House to make the first rail trip across the bridge. The directors of the railroads interested were their hosts; among these were Mr. Chittenden, the superintendent of the Central, Mr. Chapin, the president of the newly formed Boston & Albany, Mr. Smith and Mr. Toucy of the Hudson River R. R. The great figure of Dean Richmond towered above them. He was as happy as a boy at his own birthday party.

There were two cars to this first train over the bridge. The engine that hauled it was the well-known "James G. Lloyd" of the Central's fleet and Frank Shaler was the proud man delegated to handle its throttle. The two cars were entirely new and they were painted the handsome red which was beginning to replace the old-time yellow of the Central's passenger cars. Twenty-four of these new red cars were just then coming into service for through use between New York and Boston and Buffalo, a service for the first time without change at Albany. Included in the new equipment were sleeping cars, which, it was noted, were indeed of superior construction.

The train proceeded slowly and in perfect safety across the bridge. At East Albany two more cars, well filled with folk were added one from the Hudson River road and the other from the Boston & Albany. The "Lloyd" then exchanged the place of honor at the head of the train with the "James H. Banker" of the locomotive corps of the Hudson River line and the entire party returned to Albany. Again the bridge stood the strain in safety. It was then and there formally pronounced safe for travel.

Editor's Comment:

The Boston & Albany R. R. was formed by a consolidation of the Boston & Worcester and Western Railroads on September 4th, 1867. Consequently, Mr. Chapin in attending the celebration of the opening of this bridge on February 22, 1866, must have attended it in the capacity as president of the Western R. R., not the Boston & Albany, as stated by Mr. Hungerford.

Manchester, Dorset & Granville Railroad Company

By G. M. CAMPBELL

The New York Public Library caused a railroad to be built. Norcross Brothers Company of Worcester, Massachusetts, had secured contract for the stone work to be used in the construction of the new library for the City of New York. Ground was broken for this magnificent structure on May 1, 1900. The exterior and a large portion of the interior called for Vermont Marble. Mr. O. W. Norcross located the marble which met the specifications near South Dorset, and he forthwith joined with Mr. S. H. West and his son, E. H. West of Dorset, Vermont, practical quarriers of marble, to organize the Norcross-West Marble Company for production and preparation of the needed stone.

Some large blocks were required from which to fashion columns and other structural pieces, and drayage five miles from the quarry to a finishing mill, established at Manchester Depot, was undertaken in October 1901. This, however, proved to be impractical, as well as costly. A railroad from the quarry to the mill seemed a logical solution. The Manchester, Dorset & Granville Railroad Company had its destiny thus proscribed.

The country to be traversed was good dairyland. Maybe just hauling marble blocks to the mill was too limited an outlook. There were products of farm and village to create additional traffic. It was extravagant to think of connection with Western railroads, or the Pacific Ocean, so frequently outlined in the ambitions of railroad promotion, but it seems realistic to forecast construction to Granville, New York, where slate would yield much traffic. There would be connection with the Delaware & Hudson Railway to give a competitive outlet with that of the Rutland Railroad at Manchester Depot. Manchester, Dorset, East Rupert, Pawlet, Wells, in Vermont, and the border town of Granville, New York, should produce considerable traffic for interchange. The Manchester, Dorset & Granville, subsidiary of the Norcross-West Marble Company, should be a common carrier. The Manchester, Dorset & Granville Railroad Company was accordingly incorporated June 21, 1902 with Capital Stock of \$350,000, of which \$72,500 was issued, and a \$260,000 Five Percent Bond issue, which was subsequently paid off in 1930. It quickly built the 5.09 miles from Manchester to the quarries at South Dorset, and the first traffic over this single track line started in July 1904, but never did it extend farther to reach Granville, New York, 16 miles beyond, or even the 1½ miles farther to the village of Dorset, although continuing rumors ran high before annual meetings of the Board of Directors. It was, however, a busy little railroad in its heyday, hauling marble blocks, general freight, and passengers. The completion of the New York Public Library in May 1911 stopped the principal traffic for which the railroad was built, but other notable buildings, including the Daughters of the American Revolution Building, Washington, D. C., and the Annex to the Harvard Medical College at



Block of Marble at South Dorset Quarries For Column, Daughters of American Revolution Building, Washington, D. C.



Locomotive #1. Left to right: Harry Blanchard, Engineer, Clarence Curtis, Fireman, Kirk Adams, Conductor, Eben Taylor (spectator) Manchester Depot.

le
a
f
I
a

Cambridge, Massachusetts, drew marble from South Dorset, and there were intermittent periods of considerable traffic before common carrier operations, after 14 years, ceased on June 1, 1918.

The Vermont Marble Company acquired the Norcross-West Marble Company, and with it the M. D. & G., on May 20, 1913. Marble orders had lessened and the Vermont Marble Company apportioned what there were to more economical quarries. Operation at the Manchester Depot mill ceased. The South Dorset quarries closed in 1917, and now they provide the swimming pools for those residing in the Dorset area.

The Manchester, Dorset & Granville Railroad was important in the life of Manchester and Dorset. Its twice-a-day, morning and afternoon, passenger service each way drew excursionists, as well as riders who, when automobiles were more uncommon than now, were inconvenienced by the help of five miles on their journeys to Dorset.

Life on the M. D. & G. had its little dramas—fighting snows, unruly streams, and trespassing livestock, but once in its career drama was spotlighted into magnified prominence.

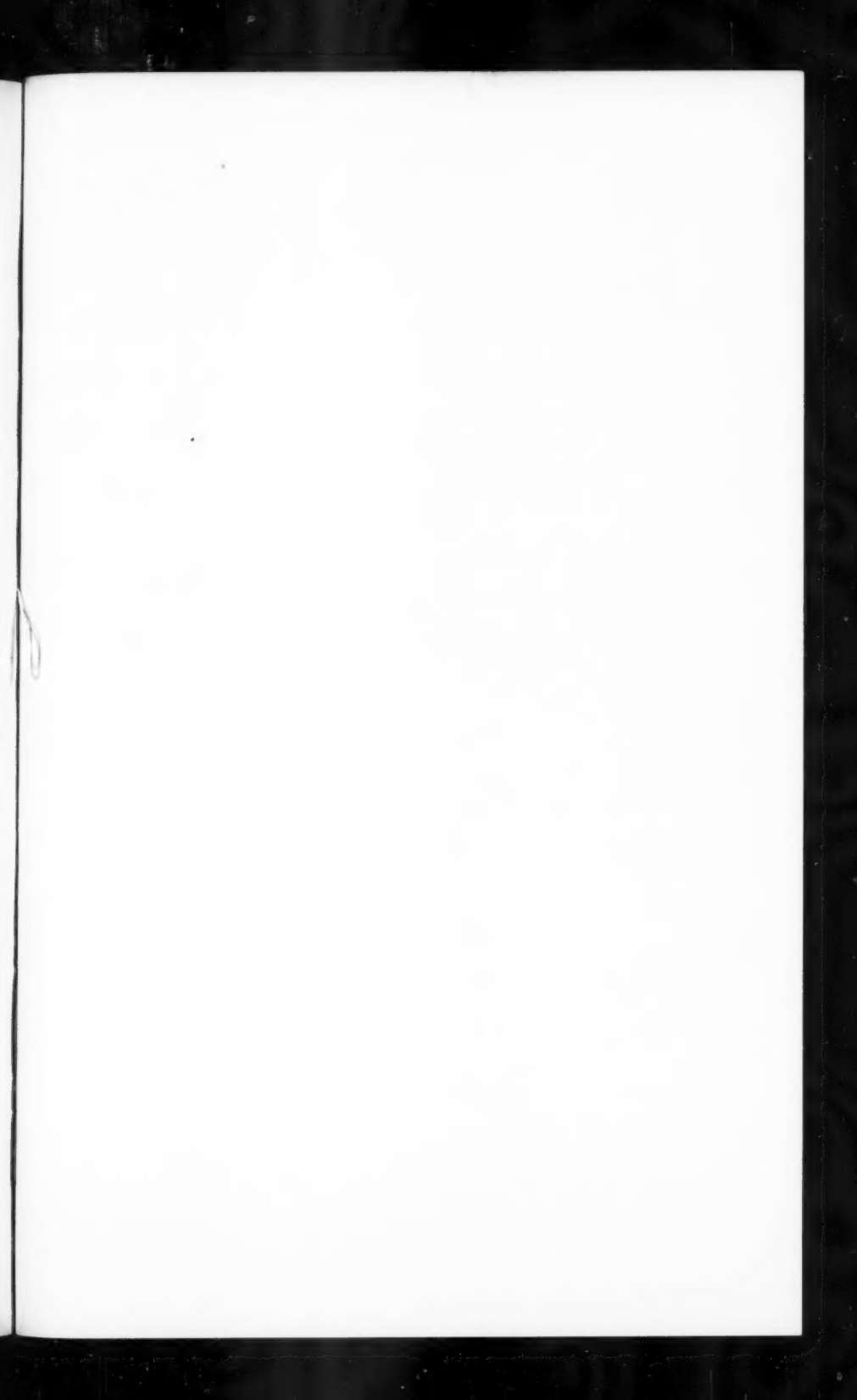
During the morning of July 6, 1906, two empty Rutland Railroad flat cars, preceded by one M. D. & G. flat car, were placed on the 4,000 foot Plateau or Upper Quarry siding, of which the grade was so steep that the locomotive was taxed to handle them. The two Rutland cars were placed under the quarry derrick. The M. D. & G. car was ahead, and it was planned to use the hand brake and let this car down the grade a short ways to the woodpile, to load after the two cars of marble had been loaded. It was customary to hold the cars on the siding with a $\frac{3}{4}$ " cable attached to the uppermost car and looped over a 3" holding pin on the ground. Two large blocks of marble, each weighing over 25 tons, had been loaded on the forward Rutland car, and one block of 30 tons had been loaded on the uppermost car. Another 20 ton block was being hoisted to load, and while it was about 45 feet in the air, the hoisting engineer noticed the cars moving. The cable holding the car had broken. In the confusion which followed, no one attempted to set the hand brakes; so the hoisting engineer tried to drop the suspended block on the car to disable it, but was prevented from giving a full blow because he had to stop the drop to permit laborers on the car to scamper. He did allow the lowering block to hit the rear end of the last car hard enough to damage it, but the cars continued to move slowly forward. The hoisting cable was allowed to run out about 250 feet, but there was little more. The brake on the hoisting drum had to be applied, and the taut cable then pulled the marble block off the car, to the ground. The runaway cars were on their way to Manchester.

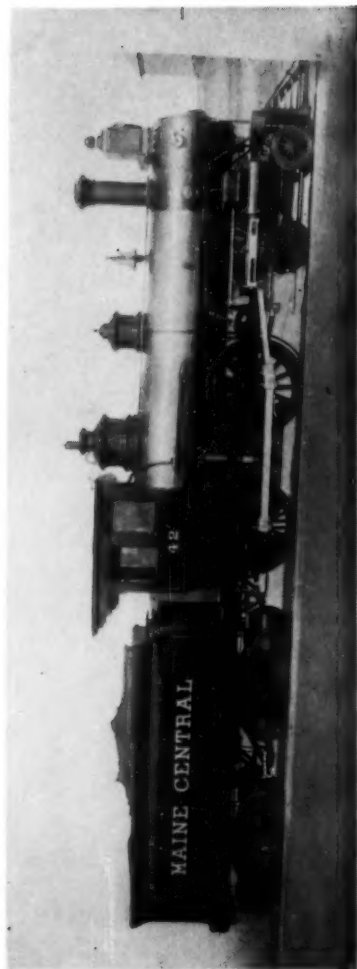
The regular 11:00 a. m. trip of the passenger coach southbound had left about 20 minutes earlier, and aboard were 40 school children with accompanying teachers, along with other passengers. When the loaded freight cars broke away, a telephone call was quickly made to Manchester Depot, where it was learned the passengers had arrived and had unloaded about four minutes before. The engine had gone to the enginehouse, and

the passenger coach was left standing on the main line. Possible death and disaster had been averted. The run-away cars, with the empty M. D. & G. flat car ahead, hit the coach and tore it from its wheels, landing it atop the flat car. Only a window in the coach door was broken. It did, however, end the career of the passenger coach, which became a tool storage car. For a while benches were put on a flat car to give an open air ride to passengers, until a second-hand car was purchased from the Rutland Railroad, to fill out the passenger carrying life of the M. D. & G.

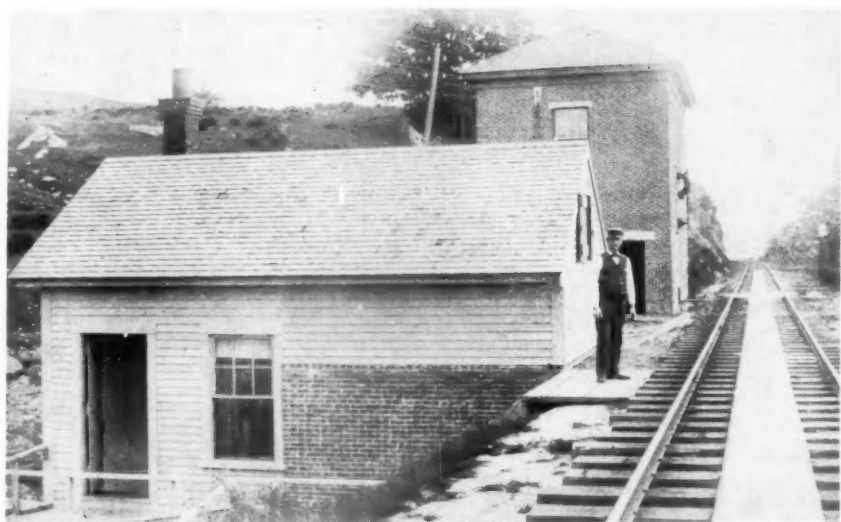
The equipment consisted of a 4-4-0 locomotive, M. D. & G. No. 1, which was formerly locomotive No. 204 of the Rutland Railroad. When the Vermont Marble Company acquired the property in June 1913, M. D. & G. No. 1 was set aside to be later scrapped, and it was succeeded by the 0-6-0 Clarendon & Pittsford No. 3. The first combination passenger-baggage car was purchased from the Cumberland Valley Railroad (now Pennsylvania Railroad). The largest number of cars owned were 10 flat cars, which shuttled between the quarry and the mill. Cars for interline movement were supplied by the Rutland Railroad. The locomotive pushed the coach ahead going to the quarries, and trailed the empty flat cars behind. Returning, the locomotive backed to Manchester, pulling the loaded cars, with the coach at the end. There was a small shelter shed station at Manchester Depot, one at South Dorset Village, and one at the quarry terminus. The Manchester, Dorset & Granville Gravel," lured young and old for a round trip of cinders and marble dust. It was as much of town life as the village clock.

Long after operations ceased the rails remained, and for about a year, in 1924-25, Messrs. Pat and Tom McCormick operated a flanged wheeled motor truck over its rusted rails to haul marble from the Kent-Root Quarry at South Dorset, for shipment from Manchester Depot to the Green Mountain Marble Company at West Rutland. Silence then again took over, and in 1934, Forrest Bros., of Bennington, bought the rails for scrap. The last gasp came when certificate of dissolution was granted February 28, 1936.





Maine Central R. R.—Second #42 Portland Co. 1887—17x24



Dresden Tank and Track-Pan Maine Central R. R., 1887

t
M

f
C

t
a
l
M
I
H

v
t
l
r

a
s
a
N
b
s
A
o
l

t
8
a
r
fi
f

h
r

r
r
n
th

The Boston and Mt. Desert Limited

In Bulletin 82, mention was made of a folder giving the running time of this fast express train between Boston and Mt. Desert Ferry, Maine.

Subsequent to the publication of this notice, a letter was received from Mr. Harry Treat, Retired Chief Train dispatcher of the Maine Central R. R., now living in South Portland, Maine.

Mr. Treat wrote that this train was inaugurated in June, 1887 and that no regular stops were made on the Maine Central between Portland and Bangor, a distance of 135 miles. However, in order to supply the locomotives with water, track pans were installed between the rails at Mine Meadow, 41 miles from Portland on the line via Lewiston; at Dresden tank, 48 miles from Portland on the line via Augusta and at Burnham Jet, 95 miles from Portland and 41 miles from Bangor.

These water pans were about 1000 feet in length, about 20 inches wide and deep enough to receive a water scoop when lowered from under the middle of the tender. Such scoops had been applied to three new locomotives and, when lowered by means of a lever in the cab, would receive several thousand gallons of water in several seconds.

The eastward train, No. 29, passed Brunswick at 1 P. M., Waterville at 2:23 P. M. and arrived at Bangor at 3:40 P. M. After a five minute stop at Bangor, the train arrived at Mt. Desert Ferry at 5:20 P. M., a total running time of five hours and five minutes to the Ferry. Me. C. Nos. 22, 34 and 35 were the first to haul these trains. No. 22 was built by Rhode Island in 1885 but Nos. 34-35 were built by Portland in the spring of 1887. In the same lot of engines was the No. 42, delivered in April of that year and she ran on this train. It is reported that she once covered a mile in 36 seconds and that she was a wonderfully fine locomotive.

The non-stop features between Portland and Bangor were discontinued after the first summer and the schedule reproduced in Bulletin 82 was in effect in 1888. The next summer saw the train discontinued as an exclusively "limited" train. The track pans and water scoops were removed during the early 1900's and this concluded the experiment of the first "limited" train in New England.

We are indebted to Mr. Treat for his kindness in adding the above facts and lending us the accompanying illustrations.

Sunday Travel

To a New Englander, the Sunday schedules of our passenger trains have differed greatly with those of week days in that fewer trains were run.

It all dates back to our early railroad days and, in some instances, railroads were forbidden to run trains on the Sabbath. That day was a day of rest, indeed—or attending church. Our early railroads were built primarily for the carriage of passengers; it was not until they were built that they found freight equally and more profitable and here came one

of the entering wedges for the movement of trains on Sunday.

Boston was the Atlantic port of the Cunard Steamship line, carrier of H. M. mails and other services. When these mails arrived they must be moved promptly by the three railroads radiating from Boston, Sunday or no. Long before the telegraph, the Boston & Worcester R. R. was in the habit of sending out printed notices warning all concerned of the departure of the mail train upon the arrival of the British steamer, no time or day given. Early one morning, the good people of Concord, New Hampshire were awakened by the loud whistling on the Concord R. R. The mail was going through to Montreal! True, these trains carried no passengers but they and the perishables were the entering wedge. Even so, the key to the enginehouse was kept in the foreman's pocket over Sunday.

A citizen of Massachusetts, in 1850, was subject to a fine of \$10.00 if he rode on a railroad train and railroads who carried passengers other than those journeying to church were punished by having their Sunday trains suspended for two successive Sundays.

In the Boston & Maine R. R. Employees Magazine for April-May-June, 1935 appears a notice relating to the Sunday train.

Sunday Train

The original design of the Sunday Train was to carry persons to church only. To carry out this design, and to prevent the abuse of it, it has become necessary to make important changes in its arrangement. The train will not run for the two following Sabbaths, that those interested may have an opportunity to comply with the new regulations.

1st. Tickets will be sold on week days only.

2nd. Persons purchasing tickets will be required to sign a writing, pledging themselves that they will use the tickets for no other purpose than attending church, and to such other requirements as are deemed necessary.

3rd. No person will be admitted to the cars unless provided with a ticket. The cars will be kept locked until the Committee are present to take the tickets as the passengers pass into the cars.

4th. Tickets can be obtained of the following individuals: In Reading, Mr. M. Eaton.

South Reading, Depot Master.

Melrose, Mr. R. P. Barry and Mr. J. G. Webster.

Malden, Mr. George Cox and Mr. D. Paine.

Medford, Mr. Cook.

Somerville, Mr. Dunlap.

N. B. The cars will stop at Charlestown.

Boston, July 14, 1850.

The Massachusetts fine continued in force as late as 1860 but, with the war between the states which caused the necessity of a prompt

movement of both freight and passengers, the opposition to Sunday travel had to subside. Even today there are many trains on our New England railroads that run daily except Sunday and there are some that run Sundays only.

The U S R A Russian Decapods

During the World War I, both the American Locomotive Co. and the Baldwin Locomotive Works received orders for a large number of these engines from Russia. The fall of the Czarist regime resulted in the builders holding these engines and altho' built for 5' gauge, they were narrowed and many were used on our American railroads which were short of motive power at the time.

One of our members, Prof. S. R. Wood, 115 West Maple Ave., Stillwater, Okla., is preparing an article on these engines for our bulletin. The builder's records do not show where these engines were delivered. Our railroads at that time were under control of the U. S. R. A. and these engines were taken over by them and assigned where needed and title to these engines did not pass to the railroads until after the U. S. R. A. relinquished control—March 1, 1920. It is a rather ambitious undertaking on the part of Prof. Wood, but, if any of our members have anything in the way of construction numbers for such engines as they know that were on certain railroads at a certain time, it would be of no little assistance to him. There were at least 200 of these engines in service on our American railroads and, despite their appearance, they did add a chapter in our locomotive history.

Worth Reading

Compiled by

ELIZABETH O. CULLEN, Librarian, Bureau of Railway Economics,
Association of American Railroads, Washington 6, D. C.

BOOKS AND PAMPHLETS

Directory of Railway Officials & Year Book 1951-1952, compiled from official sources under the direction of the Editor of *The Railway Gazette*. 57th year of publication. London, England, Tothill Press Ltd. 40 shillings. "The principal rearrangement in the present volume is really stage two in changing the method of presentation of the various units of British nationalized transport . . . This year there has been official revision of entries of a number of foreign countries from which details have not been received for many years. These include Japan and the U. S. R. R. and various (although not all) 'iron curtain' countries in Eastern Europe. An entirely new entry is that for Saudi Arabia, and details relating to Austria have been expanded considerably. . . " (pre-face, p. ii).

Greensboro Railroad Centenary, 1851-1951, by Sydney S. Aldermann, vice president and general counsel, Southern Railways. Address to Rotary Club, Greensboro, N. C., June 11, 1951. 15 p.

Hundert Jahre Eisenbahndirektion Wuppertal 1850-1950. 175 p. Illus., Maps. Wuppertal, Western Germany, Deutsche Bundesbahn Eisenbahndirektion Wuppertal. First of the state railroads in north-western Germany.

Japanese National Railway Law 1950. 22 p. Tokyo, Japan, Japanese National Railways Liaison Office.

Kentucky Stand, by Jere Wheelwright. 279 p. End-paper maps showing "A right smart stroll"—Tidewater Maryland to Kaintuckee—1777." New York, Charles Scribner's Sons. \$3.00

Locomotive Cyclopedia of American Practice 1950-1952—Fourteenth Edition, compiled and edited for the Association of American Railroads—Mechanical Division, C. B. Peek, editor. 1028 p. illus., diagrs. New York, Simmons-Boardman Publishing Corporation. *Out of print*, but copies may turn up at bookdealers.

Moody's Manual of Investments—American and Foreign: Railroad Securities, 1951, John Sherman Porter, editor-in-chief. xxxv, 1436, with Special Features Section, pp.a1-a100 inserted bet. pp. 768 and 769. Maps listed on p. ii. Tables. New York 6, N. Y., Moody's Investors Service, 65 Broadway. Price on application to Service. ". . . Full statistics showing financial and operating results are given, together with historical data, location and mileage, management and security descriptions . . . "

Nationalized Transport Operations in Great Britain (Third Year 1950), by Association of American Railroads. Bureau of Railway Economics. 28 p. Free on request to Bureau, Transportation Bldg., Washington 6, D. C. Its Special series no. 83, November 1951.

"Permanent (i.e. "Percent" Variable" Study of Class I Railroads, Part I, "Percent Variable" or "Out-of-Pocket Cost"; Part II, Yearly Increase in Efficiency for Class I Railroads, by John E. Hansbury, head valuation engineer, Interstate Commerce Commission. 20 p. Washington, 25 D. C., Association of Interstate Commerce Commission Practitioners, 2218 I.C.C. Bldg. \$1.00.

Popular Picture and Plan Book of Railroad Cars and Locomotives, compiled by Walter A. Lucas. 288 p. illus. New York 7, N. Y., Simmons-Boardman Publishing Corporation. \$5.95. A selection of detail drawing and photographs with basic text from 18th ed., Car Builders' Cyclopedia and 14th ed., Locomotive Cyclopedia, both out of print, reprinted for convenience of railfans, model builders and others "keeping up with" modern American rolling stock.

The Position of European Railways—Difficulties, Causes and Possible Remedies, by International Union of Railways (U.I.C.), 10 rue de Prony, Paris (XVIIe), France. Dated February 1951. 37 p. "III. Action taken by the railways in order to adapt themselves to existing services. V. Remedies on a national scale outside the Railways. VI. Remedies on an international scale outside the Railways."

QUIZ on Railroads and Railroadng—9th Edition—October 1951. 300 questions and their answers. Illus. Free from Association of American Railroads, Transportation Building, Washington 6, D. C. "QUIZ Jr"—new and revised edition of 100 questions and answers, also available.

Railroad Trends and Prospects, by Julius H. Parmelee, vice president, Association of American Railroads. 29 p. Address before New York Society of Security Analysts, June 8, 1951. Free from A.A.R. Bureau of Railway Economics, Transportation Bldg., Washington 6, D. C.

Report to the Minister of Transport upon the Accidents Which Occurred on the Railways of Great Britain during the year 1950, [by G. R. S. Wilson, Lieut.-Col., Chief Inspecting Officer. Dated 20th July 1951]. 76 p. London, England, H. M. Stationery Office. 2 shillings net. Editorial review in Railway Gazette, Nov. 19, 1951, p. 537, mentions: "... Prevailing conditions have prevented several much desired improvements from being carried out. ... A welcome feature is that failure of the human element is less in evidence than in recent years. ... A serious aspect ... is in the position it reveals regarding shortage of permanent way staff and the loss of men from other departments, such as locomotive running or signal and telecommunications. ... "

*Rhymes of a Railroad Man, by DeVon G. Hough. Edited and arranged by Charles E. Mounts. 66 p. Winter Park, Florida, The Orange Press. \$2.00. Order from author, Box 574, Venice, Fla. Your Boys pp. 8-9, reprinted in Railway Age, Sept. 15, 1951, p. 89, under caption "Local Station Agent—A Modern Figaro," with a summary of "The Flaming Flicker" a future dream train that makes the run from New York to Miami in 5 hours. The last verse of *Wasted Steam*, pp. 7-8, appeals to all who wonder about "the steam lost in palavar" at present. Author is station agent on Seaboard Air Line. His "More Rhymes of a*

Railroad Man" will be published this winter at \$2.00 per copy.

Suggestions for Books and Other Material on Railroads in the United States for Students of Current Transportation. October 1, 1951, by Elizabeth O. Cullen. 44 mimeo. 1 Free from Association of American Railroads. Bureau of Railway Economics Library, Transportation Bld., Washington 6, D. C.

Shoes and Stops, by L. K. Silcox, vice president, The New York Air Brake Co., 420 Lexington Ave., New York 17, N. Y. Address at Massachusetts Institute of Technology, December 5, 1951. . . . Whatever brake is recommended for railway service must satisfy the test of adequacy. . . . The schedule speeds of the past have satisfied every public requirement as have the brakes which made those speeds secure, practical, and economical. . . . We know now that new standards of performance must be presented. Braking ratios must rise rapidly with braking performance. . . . Without high-speed braking there can be no increasing speeds. Stopping distances must reflect more efficient average high-speed trains. . . . " p. 30.

Trail of Six Years—Brief sketch of rehabilitation, by Japanese National Railways, [34] p. Illus., Maps. Free on request to M. Kanematsu, JNR, Tokyo, Japan.

Train Trouble—Centennial Lecture, Northwestern University, November 1, 1951, by L. K. Silcox. 16 p. "It took a cow to teach Chicago how to build, and it took another cow, a longhorned one, to teach Americans what a fine country the Western Plains are, and to teach the scattered residents of that region in what the real future of their territory lay . . . With the building and finishing of the Kansas Pacific in 1867 the Texas cattlemen had their chance for the middle western market, and now Iowa and Nebraska were no longer frontiers, . . . (p. 1). The world a century ago was for the most part existing upon a food supply secured within the immediate vicinity of its demands. The modern citizen in the great centers of population stretches his hand half way around the world for every other portion of his food. This increase of range is prior consideration to any treatment of present-day transport demands. . . . At present we have two hundred and twenty five thousand miles of railways which tell a vast story of engineering achievement, . . . (p. 3) The present time threatens national catastrophe for our "railways; but it likewise holds forth unexpected hope and unexampled promise. Ours is no time for fainthearted men. No matter how rugged the obstacles that confront the industry, we must push on mindful of the promise which wise and courageous leadership holds. . . . (p. 4)."

Twenty-Five Years of the North Eastern Railway 1898-1922, by R. Bell, assistant general manager, N.E.R. and L.N.E.R. Companies, 1922-1943. 87 p. London, Eng., The Railway Gazette, 33 Tothill St., Westminster, S.W. 1. Price not stated. ". . . An account of the rise and development of the North Eastern during the fifty years to 1904 was written by W. Weaver Tomlinson and published under official auspices in 1915. A sketch in lighter vein of happenings between 1898 and 1922 may go some way towards rounding off the old Company's record, though it is not based on research in secretarial archives. The chapters

which follow say little about Acts of Parliament or formal ceremonies. Their aim is to outline the Company's progress as a commercial concern and to describe the men who raised it to a foremost place among our railways." (Preface, p. 3). *Editorial Review* in the *Railway Gazette*, Nov. 9, 1951, mentions: "... To the chief goods manager's office of this many-sided railway in 1898 came Mr. Robert Bell. He soon made his mark; ... He knew the great figures of the North Eastern—Gibb, Geddes, Edward Grey, Alexander Kaye Butterworth, and others—and he shrewdly discussed their characters and capabilities. It is this evocation of personalities which makes the book of particular interest, though the author modestly refrains from mentioning his own long and distinguished service. ...

With A Cinder In My Eye—A Layman's Memories and Sketches of American Trains, by Kenneth Wentworth Downing, Rock Island, Illinois. 43 p., illus. For sale by Owen Davies, 1214 N. LaSalle St., Chicago, Ill. \$2.00. "Some Early American Railroads" pp. 1-3; "Pre-Civil War Design" pp. 3-9; "Conversion to Coal" p. 10; "A Basic American Locomotive"—4-4-0, pp. 10-14; "Some Handsome American Standards" pp. 14-17; "Passenger Trains, 1900-1920" pp. 29-32; "Freight Locomotives" pp. 33-40; "The Streamline Era" pp. 40-41. "... Tomato Worm Power" p. 43.

ARTICLES IN PERIODICALS

'*A Mari Usque ad Mare*'—A lot of preparation, a lot of planning and the work of hundreds of highly trained men lie behind the smoothness and efficiency with which the Princess Elizabeth and the duke of Edinburgh are being carried from sea to sea and back again on their triumphant Royal Visit to Canada. *Canadian National Magazine*, November 1951, front cover and pp. 10-11, 19 Illustrated.

The Alaska Railroad—... ARR helps build Anchorage-Seward motor route—dedicated Oct. 19, 1951. illus. [and] New loop area location route ready for trains next month—line change seen as vital defense link." ... The Loop has been an inspiration to tourists for many years, but it was a mountain of headaches for the railroad. For one thing was built backwards. It was designed for southbound traffic—Navy coal from the Matanuska fields. Now the heavy traffic is northbound and the back haul almost negligible. [Now, with the relocation] The new auxiliary route changes all that." *RAILBELT Reporter*, Anchorage, Alaska, October 1951, p. 1.

Army Railroadng, by J. W. Milliken. *Railroad Magazine*, January 1952, pp. 54-57. illus. "... when the colonel told me our battalion would have to build a railroad to get the division out of the desert [Harquahala Desert, Arizona], my faith in resistance to shocks was gone forever. Often we had built roads or bridges to get ourselves in or out of trouble, but who ever heard of a combat engineer batallion [302nd] in the United States building a railroad so the battalion could leave a place where it was no longer wanted? ... There was about 1½ miles of track, including 6 switches and a loading ramp. ... "

Canada—Gas Turbine Locomotive. The Railway Gazette, November 9, 1951, p. 513. "An experimental coal-burning gas turbine for locomotives will be ready to test next March, Professor Donald L. Mordell, director of the McGill University gas dynamics laboratory, has stated. . . ."

China Builds Vast Rail Link in Northwest to Soviet Asia, by Henry R. Lieberman. New York Times, December 3, 1951, pp. 1, 10. Dated Hong Kong, China, Nov. 27. Map with caption: China adding railway links with Turkish-Sib Network.

Classification Yards—Review of Data on Hump and Retarder Yards, by Committee 14—Yards and Terminals, American Railway Engineering Association. AREA Bulletin 497, November 1951, pp. 300-302. Its Report on Assignment 2, collaborating with Comm. 16 " . . . The most outstanding development in retarder hump yard operation is the use of a control machine at the crest of the hump, or in the retarder control tower, whereby the route of each car or cut of cars is selected by pushing of one button. . . ."

Diesel Electric Locomotives versus Diesel Direct Drive Locomotives, by P. L. Varma, traction supt., G. I. P. Ry. Quarterly Technical Bulletin No. 101, April 1951, pp. 132-135. Chart. This Bulletin is edited and issued by The Director, Civil Engineering, Railway Board, India, and published by East Indian Ry. Press, Calcutta, India.

Distaff Dispatcher—women just cannot dispatch trains, except Indianapolis' Phyllis Vohland [New York Central]. Railroad Magazine, January 1952, pp. 60-64, 143. Illus.

Gypsies of the Rails, by Roy E. McFee. Compressed Air Magazine, November 1951, pp. 284-289. " . . . How the owners of 1,750,000 widely wandering freight cars keep track of them."

Export Type Diesel-Electric Locomotives—General Electric Motive Power Units Are Readily Adaptable to Use on Many Foreign Railroads, —Incorporated Both Multiple-Unit Control and Dynamic Braking with out Transition, by E. L. Peebles. Railway Age, November 19, 1951, pp. 62-64. Illus., Diagrs., charts. Profile of Matadi-Leopoldville line in the Belgian Congo, p. 64.

Freight Locomotives for Uruguay—Oil-Burning Engines having a light axleload in relation to power, The Railway Gazette, November 9, 1951, pp. 517, 525. Illus., diagrs. Built by Henschel & Sohn, Kassel, Germany. 2-10-0 type. Ed. comment, p. 507.

First Aid for the Spanish Railways . . . New Equipment and Supplies, by H. S. McBride. Railway Age, October 8, 1951, pp. 44-57. Illus. "American loan will help rehabilitation of overworked 8,000-mile state-owned system."

General Dodge Centennial Edition. The Norwich University Record, Northfield, Vermont, November 2, 1951. Celebrated centennial of graduation of General Grenville Mellen Dodge. *Railroad pageant address*, by Dr. David L. Snader, pp. 15-22. *Railroad Hour Address*, by Robert S. Henry, pp. 23-28, mentioned: " . . . He will always be best known for his half-century's connection with the Union Pacific, first as chief engineer and then as director. But his engineering skill and

organizing ability and his dynamic driving force helped to build, in the 1870's the Texas and Pacific . . . He had a part in building what became the International-Great Northern, and lines in Mexico, and was, for a season, president of the Missouri, Kansas & Texas. He was one of those who created the trunk line between Texas and Colorado, the northern end of which is The Colorado & Southern, and the Texas end, the Fort Worth & Denver City. . . . In his day, Dodge saw the continental network of rails filled in . . . He was part of the tremendous growth and improvement of railroading in America from the day of his graduation here at Norwich a hundred years ago, well into the early years of this century. . . . I wonder whose graduation will be observed a century hence—and in what field of global, or perhaps interplanetary, transportation he will have pioneered, "as Granville Dodge pioneered in the trans-continental transportation which binds America in unshakeable national unity?"

Inauguration of Indian Central and Western Railways—a further important stage in the regrouping on a Regional basis of the systems of the Dominion. The Railway Gazette, November 9, 1951, pp. 515-516. Map and organization charts. Ed. comment, pp. 508-509. Brief note of this inauguration in Embassy of India's Economic News Letter, Nov. 28, 1951, p. 5, published in Washington, D. C.

International Union of Railways. The Railway Gazette, November 16, 1951, p. 537. " . . . Revived as soon as practicable after the war, as an essential unit in the reconstruction of Europe and its railway transport system, it can now claim to speak with considerable authority on behalf of the European railway industry and the lines in the Near East and North Africa linked so closely with the Continental network. . . ."

Locomotive Maintenance and "Cornfield Layouts"—Outline of a method for adapting existing railroad facilities to the needs of diesel-electric locomotive maintenance, by N. L. Walsh, Transportation Div., General Electric Co. Railway Age, October 8, 1951, pp. 41-43. Illus.

Locomotive Modernisation in the Argentine—improving engine performance capacity to cope with increased passenger and freight traffic and heavier loads, by D. S. Purdon. The Railway Gazette, October 19, 1951, pp. 431-432.

Lord Leathers appointed Secretary of State for the Co-ordination of Transport, Fuel & Power—Mr. J. S. Maclay appointed Minister of Transport & Civil Aviation. ports. The Railway Gazette, November 9, 1951, p. 523. Ed. comment: *Government Plans for Transport*, p. 507.

Modern General-Purpose Locomotives for Western Australia—a new light-axleload engine for 3 ft. 6 in. gauge, designed to burn a low-grade fuel. The Railway Gazette, October 26, 1951, pp. 461-465. Illus., diagrs. "Gradient profile on Toodyay Branch: Clackline-Lloyd's Crossing, Toodyay-Culham" p. 464.

Modern Station Architecture in the European Manner—Photographs show the Continental trend toward complete departure from historic precedents in design. Railway Age, November 19, 1951, pp. 56-59. Photographs show Amstel station, Amsterdam; Leicester, England,

Starnberger, Munich; new terminal station, Rome; Como and Messina in Italy, and architect's model of new station in Oslo, Norway.

Overseas Railways—1951, compiled by The Railway Gazette, London, England, 33 Tothill St., Westminster, S. W. 1. Maps. 7 shillings 6 pence. *Australia*, pp. 1-16; *New Zealand*, pp. 17-21; *South Africa*, pp. 23-26; *Rhodesia*, pp. 27-29, 82; *East Africa*, pp. 30-32, 81-82; *Nyasaland*, pp. 83-84; *Nigeria*, pp. 85-86; *Gold Coast*, pp. 87-88; *Eritrea*, p. 89; *Sudan*, p. 90; *Egypt*, pp. 91-93; *Iraq*, pp. 94-96; *India*, pp. 97-108; *Pakistan*, pp. 111-112; *Ceylon*, p. 113; *Burma*, pp. 114-115; *Canada*, pp. 116-119; *Ireland*, pp. 120-122; *Argentina*, pp. 123-124; *Uruguay*, p. 125; *Brazil*, pp. 126-127; *Peru*, p. 128.

Palm Beach Rails—Florida was a wilderness of 'glades and lonely pine woods until railroad builder Henry M. Flagler developed the peninsular state as America's own Riviera, by H. A. McBride. *Railroad Magazine*, January 1952, pp. 14-31. Illus. "... started at St. Augustine, still the headquarters of the Florida East Coast Railway, in 1883. ..."

Pioneers in Iron Land, by Eva L. Alvey Richards. *Minnesota History*, Autumn 1951, pp. 147-154. From Milwaukee to northern Minnesota in 1893. "... at that time, the Duluth, Missabe & Northern Railroad had not been in operation very long and the part over which our train was traveling was a new spur that had just been opened to link Brookston. It was so new that when we arrived at Grandpa's he was up with the Duluth and Winnipeg line at Stony Brook junction, now not yet recovered from the excitement that had prevailed "when the first train of ore cars went rolling down to Duluth over it ... " p. 151.

Possible Lines of Development of Wireless Communication Services on Railways in India, by B. V. Suryanarayana, deputy director, Telecommunication, Ministry of Railways (Railway Board). *Quarterly Technical Bulletin [India]*. No. 101, April 1951, pp. 138-147.

Railways of Pakistan. N. W. R. Magazine [North Western Railway], 3 Abbot Road, Lahore, Pakistan. A review of four years.

Shippers' Forum. *Railway Age*, December 3, 1951, pp. 76-77, 89, 90, 92. "B. Brewster Jennings discusses baleful effects of over-regulation. Alvin W. Vogtle opposes blanket increases in freight rates. E. Grosvenor Ploman chats about railroad passenger deficits and truck use of public highways." port.

Seattle Station Crisis—Puget Sound's Queen City has outgrown Jim Hill's King Street mail room—most proposals for new post office favor rival Union Pacific site, by Richard L. Neuberger. *Railroad Magazine*, January 1952, pp. 32-45. Illus.

Traction Électrique—Special issue of *Notre Métier—La Vie du Rail*, No. 313 [received Sept. 9, 1951]. Illus., diags. Text reviews a century of development of electric locomotives and railroad electrification all over the world, with illustrations of many "firsts" in each country. Prices: France, 100 francs; Belgium, 20 francs; Switzerland, 2 francs; Canada, 40 cents.

Transport in Africa. *International Transport Workers' Journal*, London, S. W. 4, Eng., July-August 1951, pp. 92-96. "... A continent waiting for transport unification. A recent UN survey of progress ..."

Transport in the Western Hemisphere. Modern Transport, London, Eng., November 17, 1951—special issue. "Transport and the Americas"—Editorial, p. 2. Illus., and maps.

When Upper Canada Welcomed First Railway—Countess of Elgin turned sod for Ontario, Simcoe and Huron Railway, known as the "Oats, Straw & Hay" in ceremony a century ago, compiled by Frank N. Walker. Canadian National Magazine, November 1951, pp. 12-13, 31. Illus. include reprints of 1851 pictures of ceremony and Toronto in 1851.

New Books

FOOTPRINTS OF THE DRAGON, by Vanya Oakes, 240 pages, 8½x5½. Published by The John C. Winston Co., Philadelphia, Pa. Price \$2.50.

This book is one of a series about the people that came to America to make this country a great Nation. Each book is an exciting story about a distinct national group coming from another country to find freedom in this new land. Each group has brought its own contributions to the building of this Nation. This book is a story of the Chinese and the building of the Central Pacific Railway. Labor was the great contribution the Chinese made to the completion of this road that united the Nation. Labor hacking away at the flint-like granite ledges, labor hacking away at a tunnel through the mountains, labor building trestles and how they withstood the winter cold and snows in those mountains; one frankly wonders at their hardihood. The story concerns Hip Wo, fifteen years of age at the time of his arrival in San Francisco and his adventures in helping build the road until it was completed—May 10, 1869. The authoress has taken some of the well known facts in the construction of this road and woven them around the experience of her hero. What matters it if Hip Wo was not one of those hundreds lowered over the side of a cliff in a basket to hew away a path for the railroad, or if he was not one of those that helped complete the tunnel or he was not one of the crew that prepared the last tie and spike for the ceremony. Some Chinese member of this crew did and it could have been Hip Wo as well as anyone.

Before Pearl Harbor, Vanya Oakes was a journalist in the Far East. There is a desperate need in this country for a basic knowledge and an understanding of the peoples of the Orient. We know of them chiefly through their arts—their china, pottery, silks, etc., but their civilization is far older than ours. Perhaps the Chinese proverb that inspired Hip Wo—"There is a thing to be done, and a way must be found to do it" will increase our respect for these men that, with their shovels and barrows, cold chisels and hammers, completed a railroad through some of the most difficult, if not the most difficult terrain in this country. Tyrus Wong, whose paintings have been reproduced in many national magazines furnished the illustrations at the heading of each chapter. If you like good fiction based on facts, you will certainly enjoy the experiences of Hip Wo and his companions that helped build one of the railroads that united this Nation.

BIRTH OF THE AMERICAN LOCOMOTIVE; The Story of the first two years of American Locomotive Building, 1830-1831. 25 pages, 8x5½. Published by The Picture Press, Eugene, Oregon. Price \$1.00.

One of the rare items of books pertaining to American railroad history is "The World's Railway," by J. G. Pangborn. The publishers have reprinted the early years, 1830-1831 from this book and it includes the early locomotive trials on the Baltimore & Ohio R. R., the Charleston & Hamburg and the Mohawk & Hudson Railroads. The illustrations used

are those that appear in the Pangborn's original book and this reprint is nicely printed, illustrated and bound. It is well worth the price and well worth having.

WITH ROD AND TRANSIT, The Engineering Career of Thomas S. McNair, by James B. McNair, 267 pages, 9x6. Published by the author, 818 South Ardmore Ave., Los Angeles (5), California. Price \$7.50.

Thomas Speer McNair was born in Hanover Township, Dauphin County, Pennsylvania, Oct. 13, 1824 and died in Hazleton, Pa., July 25, 1901. He witnessed the birth of the railroad and saw it enter the twentieth century. The family were Scotch Presbyterians, his father was an iron master in Hanover, and a believer in education. Thomas entered Williams College at Williamstown, Mass., but typhoid fever kept him from his studies and he withdrew at the end of his first year. He returned home and took up the profession of a teacher which he followed until 1853.

His greatest work was that of a Mining Engineer, studying under W. R. Maffet. He was identified with the construction of the North Branch (Susquehanna) Canal; the Delaware Division Canal; the Brush Valley Dam near Mt. Carmel, Park Place Storage Reservoir near Delano; the Big Black Creek Canal and the Jeddo Railroad Tunnel and the Jeddo Mine Drainage Tunnel are all marks of his success. He was the inventor of the McNair Inclined Standard Mine Transit, he improved the method of calculating vertical distances by altitude, which is of great importance, especially in mapping adjacent mines. These were incorporated in the mining laws of Pennsylvania in both anthracite and bituminous mines and in Tennessee, Ohio, Colorado and Washington as well. He was one of the organizers of the American Society of Mining and Metallurgical Engineers.

He was identified with the North Pennsylvania R. R., the Tyrone & Clearfield R. R., the East Broad Top R. R. and he was resident engineer of the Lehigh Valley R. R. from 1868 to 1894.

Such was the work of this Civil Engineer, as recounted in this book, and it bespeaks again of the fact that success can be achieved in this country by means of diligence and hard work. Biographies are always interesting.

RAILROADS DOWN THE VALLEYS, by Randall V. Mills, 151 pages, 9x5½. Published by Pacific Books, Box 558, Palo Alto, California, price \$3.50.

Our member and author of this book deserves no little credit for writing the histories of some of the short lines in our Pacific North-West. Histories of these defunct short lines are not easily written and then only after much research. The railroads included are the Walla Walla & Columbia River R. R., sometimes called the "Rawhide Line." The Oregon Pacific or the "Frustration Route" with its doubtful method of financing and high handed manner in the last century. The Oregon & Southeastern R. R., the first interurban of Portland, sometimes called the "Old Slow and Easy" a road that followed the Row River and ended in the middle of nowhere. The history of this interurban brings to mind

of your editor similar traction companies here in Massachusetts with their Sunday excursions, their parks of entertainment all for a 5c fare. Lastly, the City of Prineville Ry., a railroad that had plenty of hard luck and financial troubles but whose ending, for the time being at least, is happy.

The book is well printed, there are thirty illustrations, individual maps of the roads and maps of the Pacific North-west showing the location of these lines in relation with other railroads. Take it all in all, I believe almost all of our members will enjoy Prof. Mill's refreshing account of these little lines.

In connection with this book, your editor is taking the liberty of mentioning the work of another one of our members Prof. Elmer G. Sulzer, University of Kentucky, Lexington, Ky. Since 1945, Prof. Sulzer has had printed in the "Kentucky Engineer," a series of articles covering the abandoned railroads of that state. Each article has been carefully prepared and written, they have included the corporate facts, incidents, accidents, humor and pathos and all have been illustrated, including maps, to the extent that research has permitted. For the benefit of our members, I am listing these articles:

No. 1	The Maloney Branch	May, 1945
No. 2	The Mountain Central	Aug. 1945
No. 3	R. N. I. & B. (Riney-B)	Feb. 1946
No. 4	The Ohio & Kentucky	Aug. 1946
No. 5	Three Lumber Carriers	Feb. 1947
No. 6	Two Southern Segments	Aug. 1947
No. 7	Back in the Menifee Hills	Feb. 1948
No. 8	Route of "Old Henry"	Aug. 1948
No. 9	One Track—Two Railroads	Feb. 1949
No. 10	Two Northern Kentucky Abandonments	Aug. 1949
No. 11	The Kinniconnick & Freestone	Feb. 1950
No. 12	Commutor's Narrow Gauge	Aug. 1950
No. 13	Up North Fork Way	Feb. 1951
No. 14	In the Pennyrile	Aug. 1951

The first article is out of print but the others may be obtained at 50c each and orders should be addressed to the KENTUCKY ENGINEER. I don't know of any other publication where the history of these roads has been included.

MAIL BY RAIL, by Bryant A. Long and William J. Dennis, 414 pages, 8½x5¼, illustrated. Published by Simmons-Boardman Publishing Co., 30 Church Street, New York, N. Y. Price \$4.95.

Nearly all of us receive letters and we can't help but enjoy the friendly contact they bring us, even the bills. Sometimes we get a bit peeved at what we may think is the slowness of the Post Office but, take it by and large, they do a pretty good job, in spite of politics.

Both authors of this book have had actual service in the RPO. Mr. Long, at one time was a clerk on the midnight mail train from Washington to New York, one of the heaviest mail routes in this country

and Mr. Dennis was also a former railway mail clerk. The book is the result of 11 years of experience in P. T. S. trains, terminals and transfer offices with six years of pioneering research on the subject.

The book is jam-packed with information that you can't and won't digest in a hurry yet it is well ordered, indexed and tabled. You get a chance to see the railway mail clerk at his work of sorting letters in transit and now we have this same feature on the new highway mail buses. You are given the historical background of how the mail service started, when and where and how it grew in the years that intervened. The electric Railway Post Offices are not overlooked—shades of the little white one truck cars that used to be lined up near the Boston Post Office. If there has been anything omitted, this reviewer can't find it.

It seems to me that this book should appeal not only to Mr. J. Q. Public but to the railfan, the philatelist, the R. P. O. enthusiast as well as those connected with the Post Office Department. One thing is certain, books on this subject are none too common and the writers have presented their story in a way that will call forth your admiration and sustain your interest. If you want to know how your letter is handled between here and there, this is your best opportunity.

Randall Vause Mills

It is with regret that we must record the passing of this member in our group. Born in Mt. Sterling, Wisconsin, July 22, 1907, he attended Arizona and California public schools. He received his bachelor's degree at the University of California at Los Angeles in 1929 and his Master's Degree in 1932 at Berkeley.

He worked as a statistical clerk for the McCormick Steamship Co. and, in 1933 became an assistant teacher at the University of California in Berkeley. He came to the University of Oregon in 1938 where he was assistant professor of English. He is survived by his widow, the former Hazel I. Emery of Long Beach, California, whom he married in 1931, and his father, William J. Mills of Saratoga, California.

Professor Mills was a teacher of English with a flair for "folklore." Folklore by-passes "the great" and grows up around the daily work of the common people. He was instrumental in establishing the Oregon Folklore Society and he was the Associate Editor of the Western Folklore Magazine.

In 1947 he published a book on the steamboat traffic on the Columbia river—"Sternwheelers up the Columbia" and his last book, published in 1950,—"Railroads Down the Valley," is reviewed in this publication. He also contributed articles in our Bulletins 55, 59, and 62. Perhaps it was because of his human interest that his contributions and his books have that personal touch that makes history as readable as a novel. Certainly at the age of forty-four, he was just at the threshold of his literary career.

Returning home after one of his afternoon classes, he died of a heart attack on January 18th. Thus in a little over a decade he had paved the way and laid the foundation for historical research, including transportation, in the northwest and he will not only be missed in his home and in his own environment, but he will also be missed in this group, to which he was very much attached and very loyal.

In Memory of

J. V. HOGAN

Annual Member

Baltimore, Maryland

Who died on June 7, 1951

A. C. LIVERMORE

Annual Member

Pittsburgh, Pennsylvania

Who Died on October 15, 1951

